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1937

Administration Report of the Public Works Department in the Bombay Presidency for the Year 1934-35

With a detailed review of the Civil and Military Works

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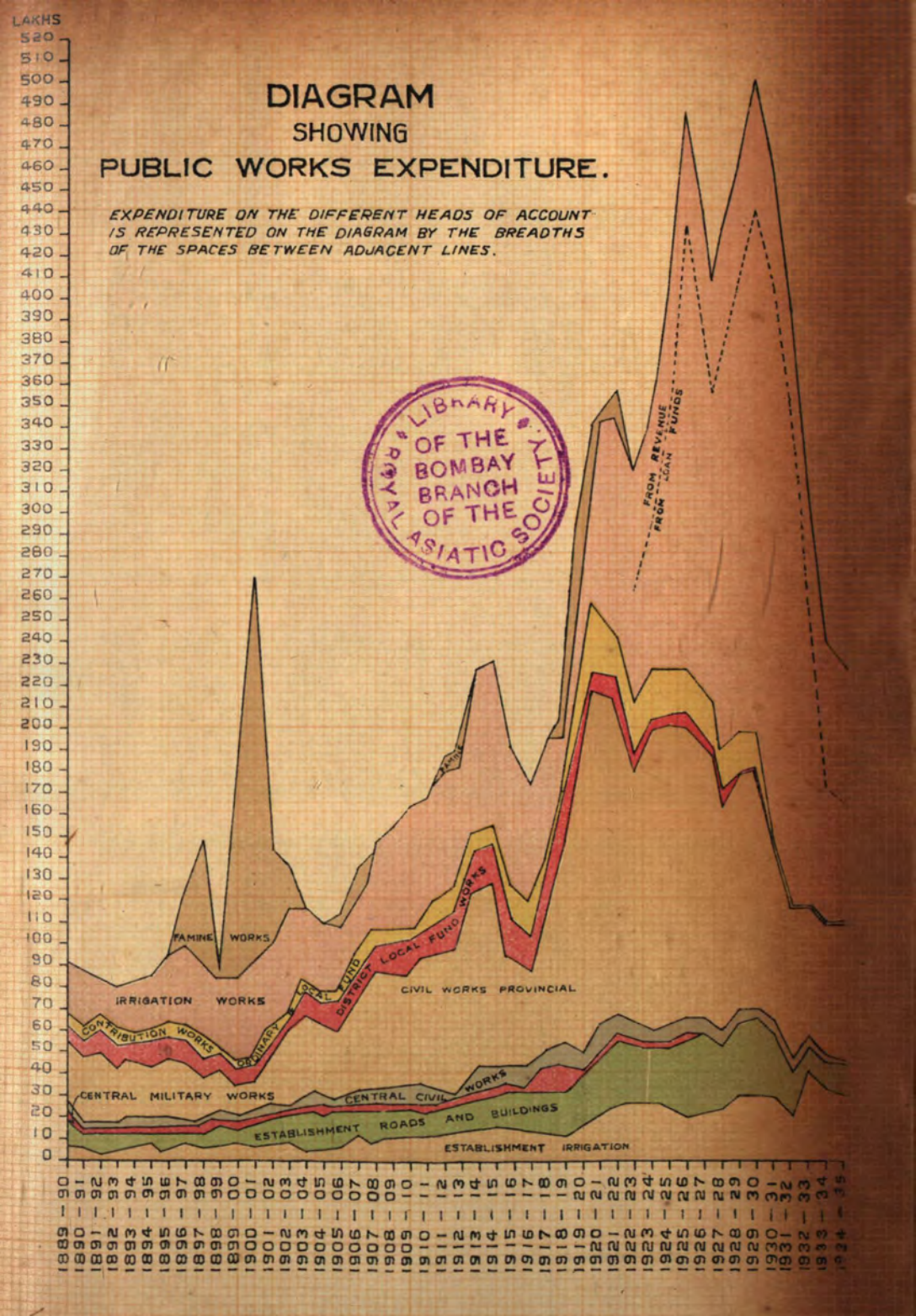
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DIAGRAM
SHOWING
PUBLIC WORKS EXPENDITURE.
EXPENDITURE ON THE DIFFERENT HEADS OF ACCOUNT IS REPRESENTED ON THE DIAGRAM BY THE BREADTHS OF THE SPACES BETWEEN ADJACENT LINES.
LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY
FROM REVENUE
FROM LOAN FUNDS
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IRRIGATION WORKS
CONTRIBUTION WORKS
ORDINARY
CANAL FUND
DISTRICT LOCAL FUND WORKS
CIVIL WORKS PROVINCIAL
CENTRAL MILITARY WORKS
CENTRAL CIVIL WORKS
ESTABLISHMENT ROADS AND BUILDINGS
ESTABLISHMENT IRRIGATION
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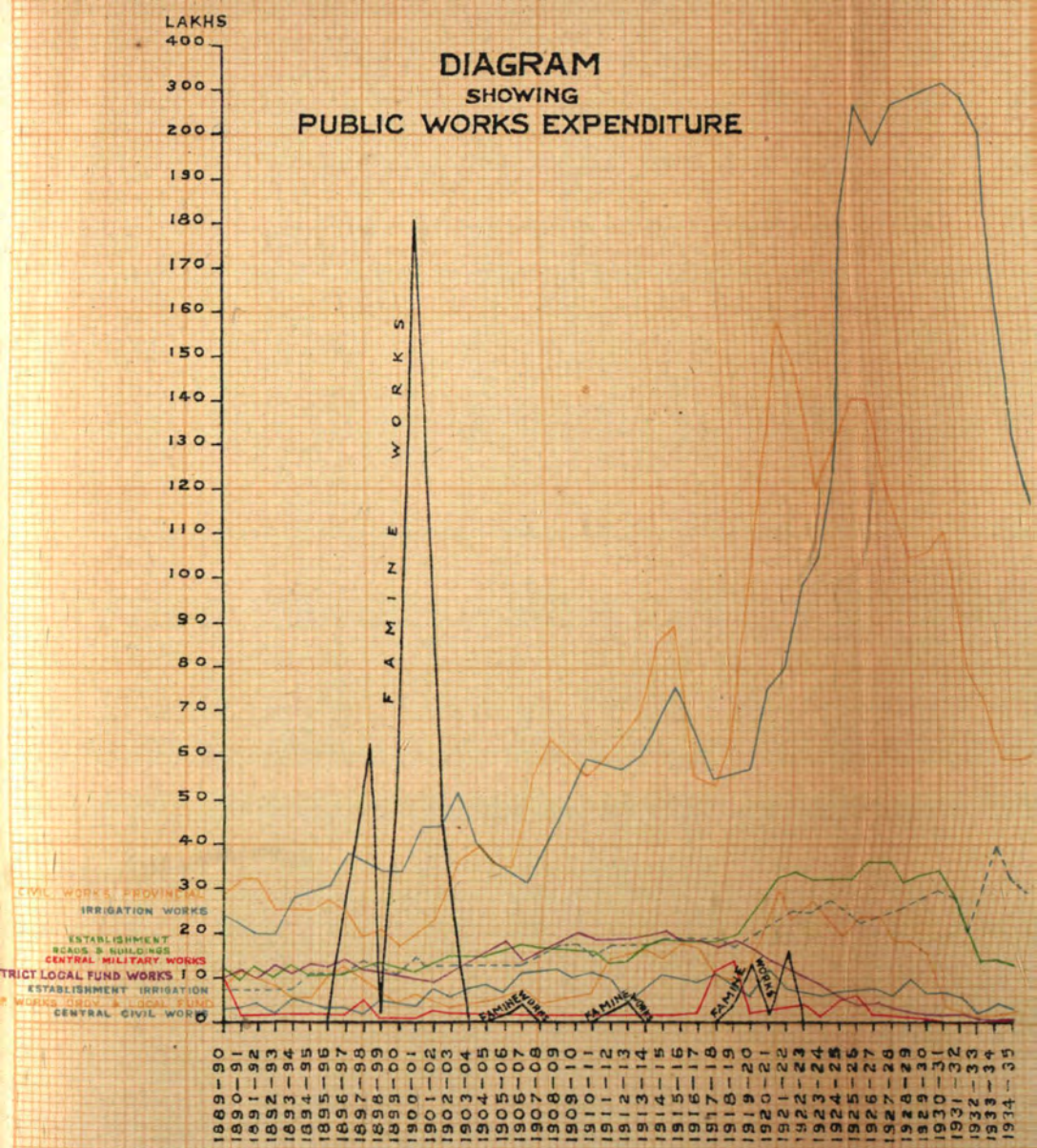


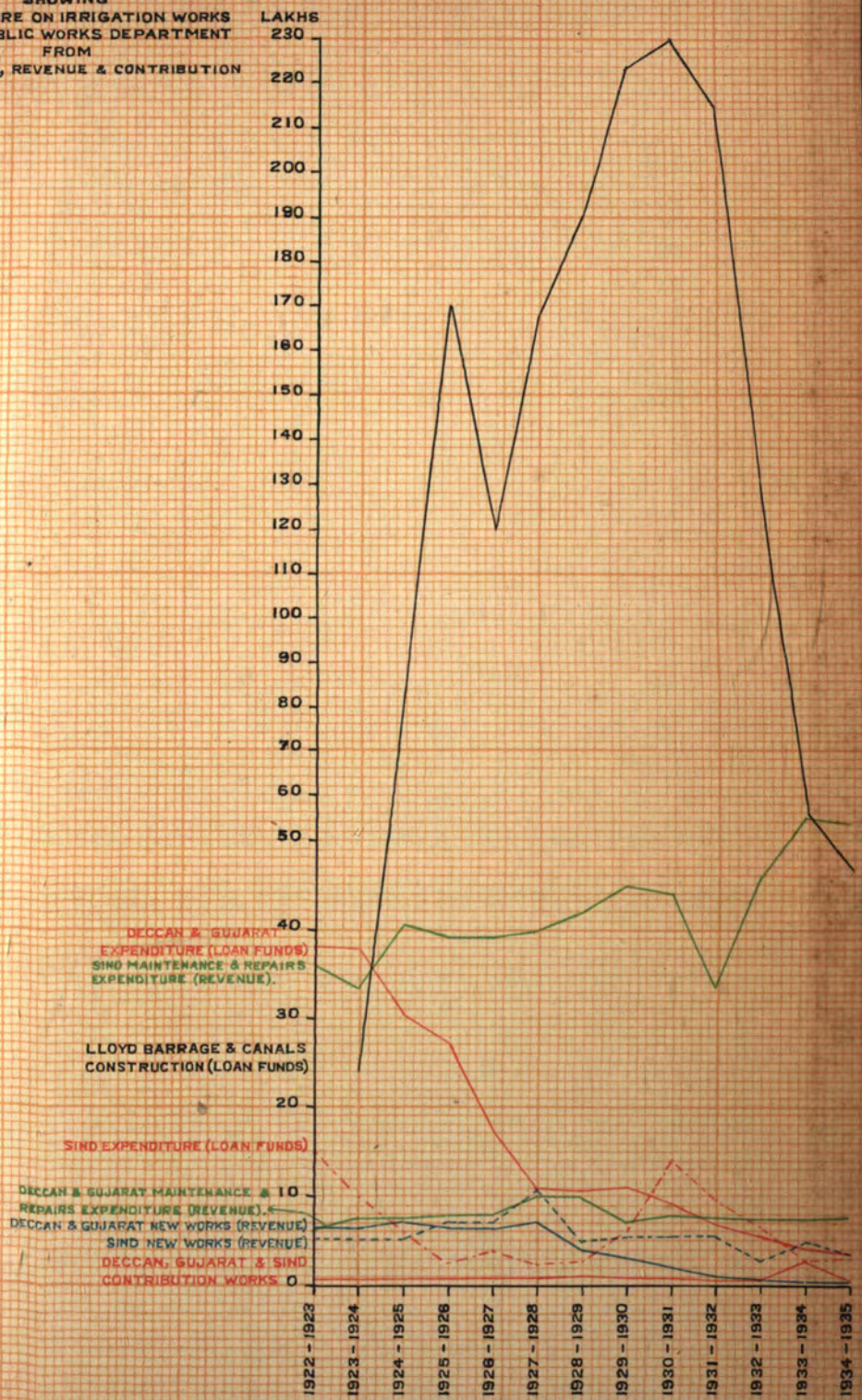
G.P.Z.O. Poona, 1936.

DIAGRAM

SHOWING

EXPENDITURE ON IRRIGATION WORKS IN THE PUBLIC WORKS DEPARTMENT FROM

LOAN FUNDS, REVENUE & CONTRIBUTION

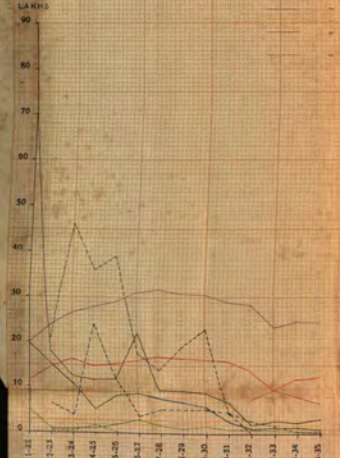


G.P.Z.O. POONA, 1936.

DIAGRAM SHOWING EXPENDITURE ON PROVINCIAL BUILDINGS AND ROADS IN THE PRESIDENCY PROPER AND SIND.

Represents 41 C.W. Expenditure on Buildings for Original Works.
60 " " " " " "
41 " " " " Maintenance
41 " " Metalled Provincial Roads for Original Works
60 " " " " " "
41 " " Unmetalled " " "
60 " " " " " "
41 " " Metalled " " Maintenance
41 " " Unmetalled " " "
41 " " from Development Fund Provincial Roads for Original Works
41 " " " " " Maintenance

PRESIDENCY PROPER.



SIND.

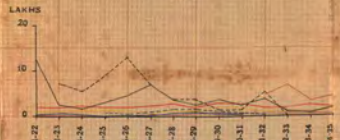
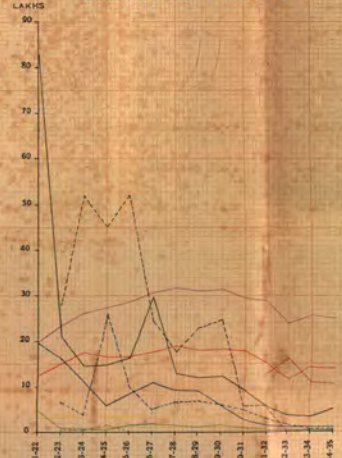


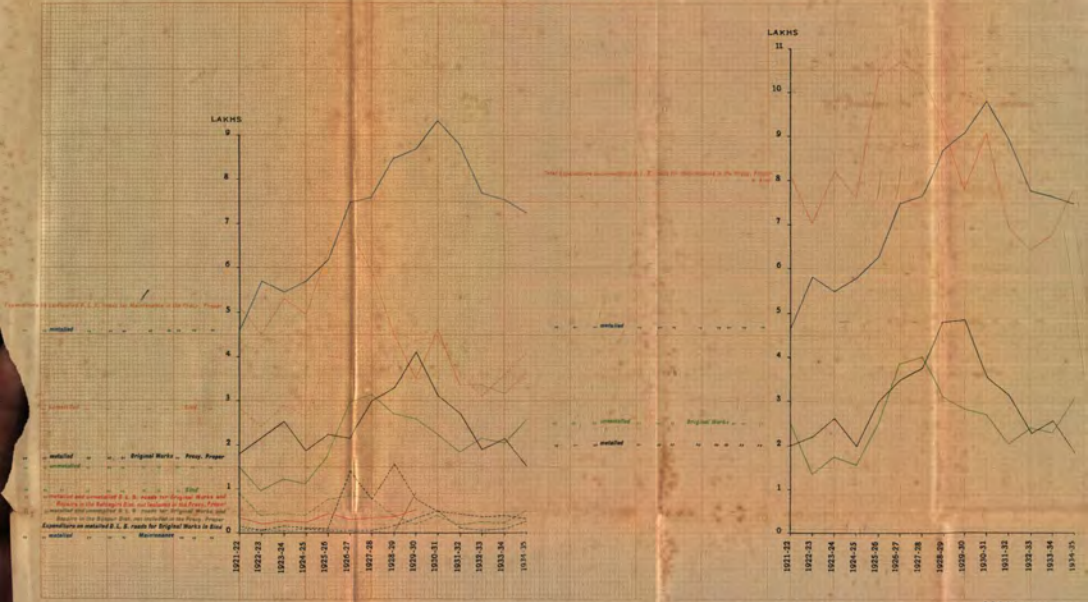
DIAGRAM SHOWING TOTAL EXPENDITURE IN THE PRESIDENCY PROPER AND SIND.



C. P. C. S. Press, 1935.

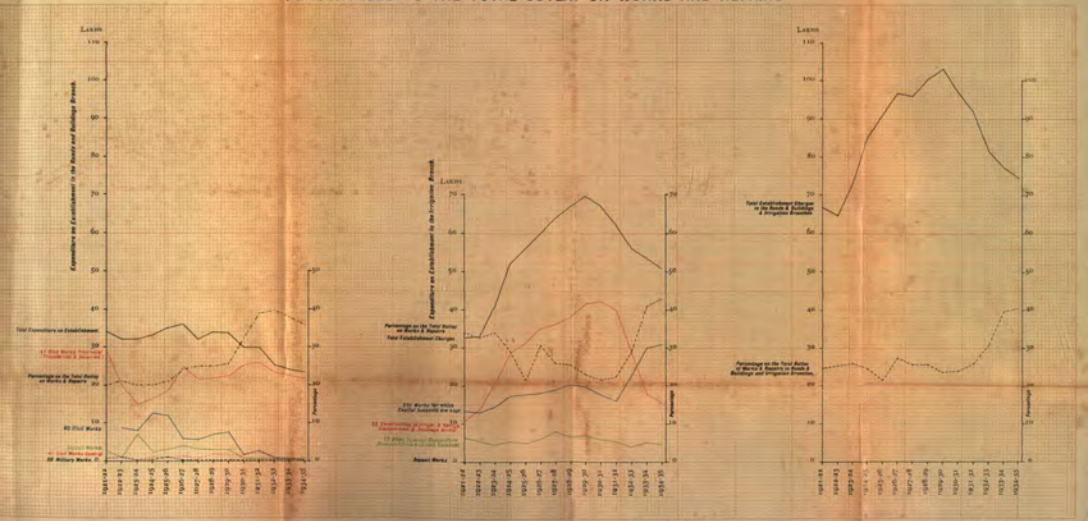
DIAGRAM SHOWING THE EXPENDITURE ON D. L. B. ROADS IN THE PRESIDENCY PROPER AND SIND.

(ORIGINAL WORKS AND REPAIRS)



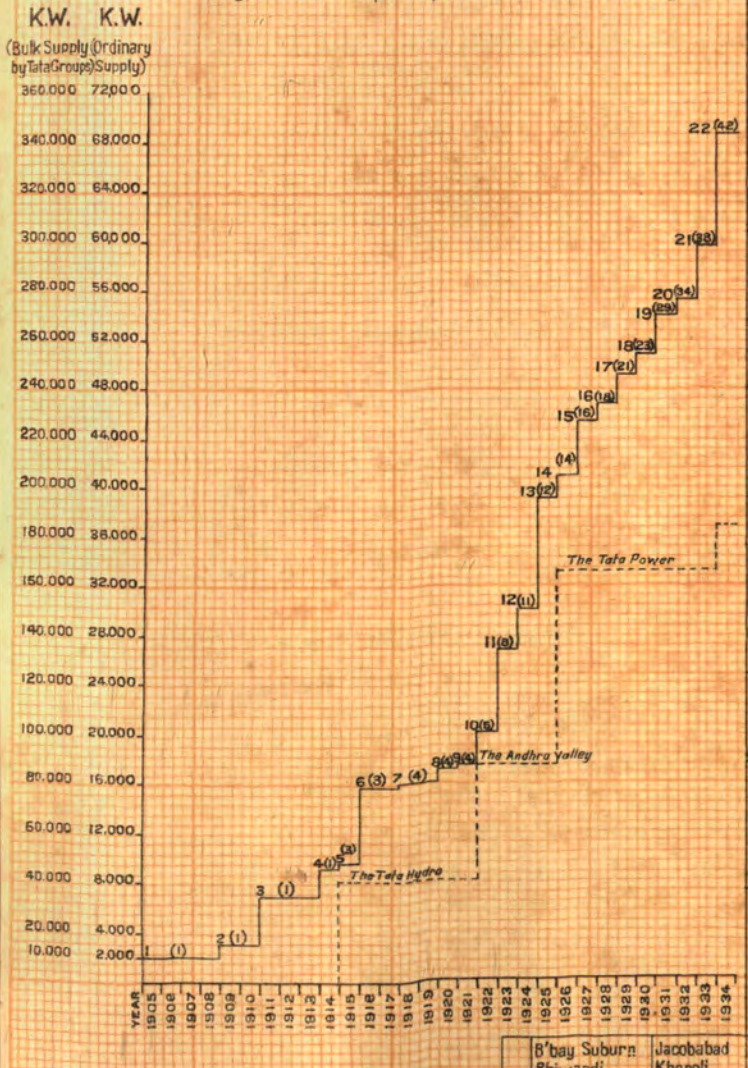
S. P. I. S. Press, 1936.

DIAGRAM SHOWING EXPENDITURE
ON ESTABLISHMENT
IN THE
ROADS & BUILDINGS & IRRIGATION BRANCHES
OF THE
PUBLIC WORKS DEPARTMENT
AND
PERCENTAGES TO THE TOTAL OUTLAY ON WORKS AND REPAIRS


Lakhs
Expenditure on Establishment in the Roads and Buildings Branch.
Total Expenditure on Establishment
Percentage on the Total Outlay on Works & Repairs
Percentage
Lakhs
Expenditure on Establishment in the Irrigation Branch.
Percentage on the Total Outlay on Works & Repairs
Total Establishment Charges
Lakhs
Total Establishment Charges in the Roads & Buildings & Irrigation Branches.
Percentage on the Total Outlay of Works & Repairs in Roads & Buildings and Irrigation Branches.
Percentage

GRAPH
SHOWING THE PROGRESS OF ELECTRICAL DEVELOPMENT IN TERMS OF KILOWATTS INSTALLED FROM 1905 TO DATE BY VARIOUS SUPPLY COMPANIES IN THE BOMBAY PRESIDENCY

NOTE ~ Dotted line shows Tata Groups Bulk Power Supply.
Full line shows total of ordinary Supply.
Figures in Brackets, thus (4) show the number of Companies, excluding the Tata Groups in operation at the end of each year.



INCREASE DUE TO		
Ref. No	Incre. or decre. of load old Supply Co.	Start of new Supply Co.
1		Bombay El. S.T.
2	Bombay El. S.T.	
3	Bombay El. S.T.	
4	Bombay El. S.T.	
5		Ahmedabad Karachi
6	Bombay El. S.T.	
7	Ahmedabad	Poona
8	Ahmedabad Karachi Poona	
9	Karachi	
10	Bombay El. S.T. Poona	Surat
11	Bombay El. S.T. Ahmedabad Poona	Godhra Hyderabad Sukkur
12	Ahmedabad Karachi Poona Hyderabad Sukkur	Broach Gadag and Betigeri. Shikarpur
13	Bombay El. S.T. Ahmedabad Poona Hyderabad	Sholapur
14	Poona Sukkur Broach	Rander Aden (Transed. to G of I on 1-4-37.)
15	Bombay El. S.T. Poona Surat Hyderabad Sukkur	Bhiwandi Hubli
16	Karachi Surat	B'bay Suburn Thana
17	Bombay El. S.T. Surat Hyderabad Broach Shikarpur B'bay Suburn	Lonavla – Khandala Kalyan Bijapur
18	Poona Sukkur Rander B'bay Suburn	Panvel Dharwar
19	Bombay El. S.T. B'bay Suburn Bhiwandi Ahmedabad Godhra Panvel	Pandharpur Panchagani Matheran Larkhana Jalgaon Nasik-Deolali
20	B'bay Suburn Kalyan Rander Pandharpur Bijapur Matheran Sukkur (Reduction)	Dhulia Ahmednagar Amalner Nadiad Belgaum
21	Bombay El. S.T. B'bay Suburn Thana Bhiwandi Surat Lonavla Dhulia Ahmednagar Hubli Bijapur Matheran Karachi Hyderabad	Bulsar Yeola Baramati Barsi Mirpurkhas
22	B'bay Suburn Bhiwandi Kalyan (Reduction) Ahmedabad Surat Sholapur Pandharpur (Reduction) Panchgani Bijapur Dharwar Matheran Panvel (Reduction) Larkhana Belgaum Bulsar	Jacobabad Khopoli Haveri Bagalkot

29-7-38.
Electrical Engineer to Government
P.W.D. Bombay.

G.P.S.O. POONA, 1938.

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PUBLIC WORKS DEPARTMENT.

BOMBAY PRESIDENCY

ADMINISTRATION REPORT WITH A DETAILED REVIEW OF THE CIVIL AND MILITARY WORKS FOR 1934-35.

I—DIRECTION.

During the year under report, Mr. C. M. Lane, C.S.I., I.S.E., Chief Engineer and Secretary to Government, proceeded on leave with effect from 8th April 1934 for a period of 7 months and 25 days and Mr. N. B. Baxter, I.S.E., was appointed to officiate as Chief Engineer and Secretary to Government during this period.

II—ADMINISTRATIVE MEASURES.

On the retirement of Mr. J. B. S. Thubron, C.I.E., I.S.E., Mr. C. M. Lane, C.S.I., I.S.E., was confirmed as Chief Engineer (permanent) with effect from 16th January 1934.

The Secretary of State accorded his sanction to the revision of the cadre of the Indian Service of Engineers on the following lines—

(1) the abolition and holding in abeyance of certain Administrative and Divisional posts,

(2) the continuance of the temporary post of Joint Chief Engineer in Sind up to 31st March 1933,

(3) the formal reduction of the cadre of the Indian Service of Engineers from 64 to 53 superior posts,

(4) the establishment of a revised cadre of 93 officers based on the following 58 superior posts :—

Presidency Proper.	Sind.
2 Chief Engineers.	
1. Chief Engineer and Secretary to Government.	1. Chief Engineer in Sind.
9 Superintending Engineers.	
1. Superintending Engineer, Northern Circle.	1. Superintending Engineer, Northern Sind Circle.
2. Superintending Engineer, Central Circle.	2. Superintending Engineer, Western Sind Circle.
3. Superintending Engineer, Deccan Irrigation Circle.	3. Superintending Engineer, Southern Sind Circle.
4. Superintending Engineer, Southern Circle.	4. Superintending Engineer, Rohri Canal Circle.
	5. Superintending Engineer, Eastern Sind Circle.

Presidency Proper. Sind.

44 *Divisional charges.*

Secretariat.	Under the control of the Chief Engineer in Sind.
1. Deputy Secretary, Roads and Buildings.	1. Development and Research Division.
2. Deputy Secretary, Irrigation and Railways.	
Northern Circle.	*Northern Sind Circle.*
3. Presidency Division ..	2. Begari Canals Division.
4. Thana Division	3. Shikarpur Canals Division.
5. Surat and Broach Division ..	4. Khirtar Division.
6. Kaira and Panch Mahals Division.	5. North-Western Canal Division.
7. Ahmedabad Division ..	6. Barrage Division.
Central Circle.	*Western Sind Circle.*
8. Poona Division	7. Rice Canals Division.
9. Sholapur Division	8. Northern Dadu Division.
10. Nasik Division	9. Southern Dadu Division.
11. Khandesh Division ..	10. Warah Division.
12. Satara Division (held in abeyance).	
Deccan Irrigation Circle.	*Southern Sind Circle.*
13. Nasik Irrigation Division ..	11. Fuleli Canals Division.
14. Poona Irrigation Division ..	12. Karachi Canals Division.
15. Ahmednagar Division ..	13. Karachi Buildings Division.
16. Nira Right Bank Canal Division.	14. Nasir Division.
17. Irrigation Research Division ..	15. Hyderabad Division.
Southern Circle.	*Eastern Sind Circle.*
18. Belgaum Division ..	16. Northern Jamrao Division.
19. Dharwar Division ..	17. Southern Jamrao Division.
20. Kanara Division ..	18. Mithrao Division.
21. Ratnagiri Division ..	19. Khipro Division.
	Rohri Canal Circle.
	20. Rohri Division.
	21. Nasrat Division.
	22. Dad Division.
	23. Hala Division.

3 *Divisional charges.*

For extra-departmental service.

The following officers were confirmed as Superintending Engineers (permanent) with effect from 13th November 1934 against the five new posts of Superintending Engineers sanctioned by the Secretary of State in the above mentioned revision of the cadre of the Indian Service of Engineers :—

(1) Mr. N. B. Baxter, I.S.E.

(2) Mr. W. L. C. Trench, B.A.I. (Dub.), M.Inst.C.E., I.S.E.

(3) Mr. H. J. M. Cousens, B.Sc. (Eng.), Glas., C.P.E.(Glas.), A.M.Inst.C.E., I.S.E.

(4) Sahibzada Harun Quadir Saiyid Musa Ali Mirza, I.S.E.

(5) Mr. Dhan Raj Sawhney, I.S.E.

Mr. C. C. Inglis, B.A., B.A.I. (Dub.), M.Inst.C.E., I.S.E., was confirmed as Superintending Engineer (permanent) with effect from 17th November 1934 vice Mr. A. B. Spencer, L.C.E., I.S.E., retired.

Mr. T. A. Andrew, B.Sc.(Eng.) Glas., I.S.E., was confirmed as Superintending Engineer (permanent) with effect from the 27th November 1934 vice Mr. C. O. Lowsley, I.S.E., retired.

Colonel D. S. Johnston, R.E., I.S.E. (in Foreign Service) was promoted to the rank of Superintending Engineer (permanent) with effect from 3rd December 1934 vice Mr. A. H. Whyte, I.S.E., retired.

Three graduates from the College of Engineering, Poona, and the N. E. D. Civil Engineering College, Karachi, were appointed as Candidates in the Bombay Service of Engineers.

Orders on certain of the recommendations of the Reorganisation Committee, which were still under consideration, were passed as noted below :—

(1) the proposals that a further post of Superintending Engineer (in addition to that of the Superintending Engineer, Irrigation Development and Research Circle) and also that the Kaira and Panch Mahals divisional charge should be abolished were not accepted by Government,

(2) as regards the proposal that the posts of Assistant Engineers attached to the offices of Superintending Engineers in the Presidency proper should be abolished, it was ordered that only one technical Assistant—who might either be an Assistant Engineer of the Bombay Service of Engineers or a Supervisor or an Overseer of the Bombay Subordinate Engineering Service—should continue to be attached to each administrative office (i.e., those of Chief Engineers and Superintending Engineers of Circles) for the carrying out of professional work in such offices.

III—TERRITORIAL CHANGES.

Divisional Charges.

The continuance of the following temporary Divisions was sanctioned up to the dates mentioned—

Manchar Drainage Division .. 31st March 1935.
Right Bank Drainage Division. 28th February 1935.

A new temporary Division, known as the Left Bank Drainage Division, comprising two Sub-divisions and having its headquarters situated at Sukkur, was created with effect from 3rd April 1934 for the period ending 28th February 1935 and it was placed under the direct control of the Chief Engineer in Sind.

The Right Bank Drainage Division and the Left Bank Drainage Division were, later in the year, transferred from the direct control of the Chief Engineer in Sind to that of the Superintending Engineer, Western Sind Circle, and the Superintending Engineer, Northern Sind Circle, respectively, for reasons of administrative convenience.

Sub-divisional changes.

The Vir and Baramati Sub-divisions of the Poona Irrigation Division and the Bhatgar Sub-division of the Nira Right Bank Canal Division were so re-arranged as to form the newly created Vir, Baramati and Pandhara Sub-divisions of the Poona Irrigation Division.

Sind.

No. I Sub-division was transferred from the jurisdiction of the Right Bank Drainage Division to that of the Left Bank Drainage Division with effect from 3rd April 1934 and No. II Sub-division was opened in the latter Division with effect from 1st June 1934. The following Sub-divisions in Sind were abolished during the year 1934–35 :—

Name of Sub-division.	Name of Division in which comprised.	Date of abolition.
Sind Sanitary Sub-division ..	Karachi Buildings Division	15th May 1934. Afternoon.
Drainage Experimental Sub-division.	Right Bank Drainage Division.	31st May 1934. Afternoon.
Rohri Head Sub-division ..	Rohri Division ..	12th June 1934. Afternoon.
No. II Sub-division ..	Manchar Drainage Division	31st July 1934. Afternoon.
No. IV Sub-division ..	Manchar Drainage Division	31st July 1934. Afternoon.
Bund Sub-division ..	Warah Division ..	30th September 1934. Afternoon.

A total of 101 Sub-divisions existed in Sind on 31st March 1935.

Miscellaneous.

The duties of the Mechanical Engineer to Government, which had been assigned to the late Superintending Engineer, Public Health, Bombay, were subsequently assigned to the Executive Mechanical Engineer and Works Manager, Government Central Stores and Workshop and Training Centre, Dapuri.

The appointment of Mr. E. C. Henriques, Chartered Architect, as part-time Architectural Adviser to Government was continued for a further period ending 31st December 1935.

Revised scales of pay for clerical and other subordinate establishments of the Public Works Department were sanctioned during the year.

IV—DETAILED REVIEW.

A—Civil Buildings.

During the year under review the Roads and Buildings Branch of the Public Works Department of the Presidency executed works involving a total expenditure of Rs. 99,26,535. Important details of expenditure under the various heads are given below :—

Central Services.

	Rs.
Customs—	
On Works	1,937
On repairs	45,039
	46,976
Salt—	
On works	13,783
On repairs	87,406
	1,01,189
Ecclesiastical—	
On works	1,113
On repairs	21,733
	22,846
Political—	
On works	491
On repairs	2,242
	2,733

Scientific Department—Meteorological—

	Rs.
On works	1,306

Under this head an expenditure of Rs. 5,183 was incurred on repairs.

Public Health—

Under this head an expenditure of Rs. 1,840 was incurred on repairs.

Mint—

	Rs.
On works	994
On repairs	7,869
	8,863

Currency—

On works	40
On repairs	5,292
	5,332

Miscellaneous—

Under this head an expenditure of Rs. 5,014 was incurred on repairs.

Post Offices—*

	Rs.
On works	51,212
On repairs	60,392
	1,11,604

Telegraph Offices—

On works	10,764
On repairs	33,133
	43,897

The work of constructing a Post Office at Bellasis Road, Byculla, was completed at a total cost of Rs. 44,635. The construction of a Post Office, including the Sub-Post Master's quarters, was also completed at Indi, Bijapur District.

Archaeological†—

Under this head an expenditure of Rs. 26,075 was incurred on repairs.

*With effect from the year 1921–22 the expenditure incurred on the buildings of the Post and Telegraph Department has been transferred to the control of the Accountant General, Posts and Telegraphs.

†With effect from the year 1921–22 the expenditure incurred on Archæological works has been transferred to the control of the Accountant General, Central Revenues.

Military works—

Under this head an expenditure of Rs. 6,808 was incurred on repairs.

Provincial Services.

	Rs.
Land Revenue—	
On works	1,436
On repairs	4,439
	5,875
Excise—	
On works	14,795
On repairs	22,720
	37,515
Forests—	
On works	1,701
On repairs	5,167
	6,868
Registration—	
On works	4,493
On repairs	259
	4,752
General Administration—	
(1) (*a*) Residences for Heads of Provinces (Reserved)—	
On works	49,838
On repairs	1,94,038
	2,43,876

The drainage scheme for Government House, Ganeshkhind, was in progress. The expenditure incurred on works during the year was Rs. 24,986.

	Rs.
(1) (*b*) Residences for Ministers (Transferred)—	
On repairs	3,200
(2) Provincial Legislative Councils—	
On works	1,098
On repairs	12,958
	14,056

(2) (*b*) Residences for Legislative Bodies—	Rs.
On repairs	1,016
Secretariat and Head Quarters Establishment—	
On works	2,498
On repairs	12,674
	15,172
(4) Commissioners and District Officers—	
On works	87,948
On repairs	1,94,198
	2,82,146
Administration of Justice—	
On works	40,534
On repairs	82,402
	1,22,936
Jails and Convict Settlements—	
On works	13,982
On repairs	75,430
	89,412
Police—	
On works	1,23,114
On repairs	2,70,941
	3,94,055

The construction of additional police quarters required for the Head Quarters Police at Sholapur, estimated to cost Rs. 1,88,000, was undertaken during the year and the work is in progress. A new bungalow for the District Superintendent of Police, Upper Sind Frontier District, was constructed at Jacobabad.

Education—University—	Rs.
On works	14,588
On repairs	33,377
	47,965

The deposit contribution work of constructing a bungalow for a Professor at the Ismail College, Andheri, was carried out.

	Rs.
Secondary—	
On works	5,283
On repairs	19,247
	24,530
Primary—	
Under this head an expenditure of Rs. 1,216 was incurred on repairs.	
Special—	
On works	495
On repairs	10,690
	11,185
Miscellaneous—	
On works	1,083
On repairs	26,701
	27,784
Medical—	
On works	28,710
On repairs	1,31,160
	1,59,870
Miscellaneous—	
On works	8,704
On repairs	41,455
	50,159
Agriculture—	
On works	30,408
On repairs	20,849
	51,257
Stationery and Printing—	
On works	407
On repairs	12,764
	13,171

	Rs.
Civil Works—	
On works	47,913
On repairs	1,91,698
	2,39,611
Public Health—	
On works	1,494
On repairs	27,503
	28,997
Miscellaneous Departments—	
On works	1,44,576
On repairs	4,739
	1,49,315

Government Central Stores, Workshop and Training Centre, Dapuri.

During the year under report the total outturn, including the closing balance, was Rs. 1,23,321, as compared with Rs. 94,363 in the previous year. The outturn has increased as a result of increased business offered during the year. The work done was of a varied nature and included repairs to road rollers, pumps of all descriptions, oil engines, stone crushers, mortar mills, manufacture of sluice gates, B. S. S. pipe specials, roof trusses, gear wheels, special gauges for measuring water, etc. The work of manufacture of 'Everite' specials and joints for a Bombay firm was continued throughout the year. Expert advice was given to various local bodies. Designs, specifications and preliminary estimates for pumping plants required at several places were prepared.

During the year under report 32 apprentices were under training and 5 apprentices completed their training.

B.—Electrical.

(1) *Electric Licenses.*

Electric supply continued to attract the attention of the public in an increasing degree. Two new licenses and four sanctions under Section 28 of the Indian Electricity Act were granted during the year under report (1934–35) for the supply of electricity to Nipani, Haveri, Bassein, Tando Adam, Dadu and Manmad, while several additional applications were under the consideration of Government. By the end of the year under review, electricity had been installed in 42 centres in the Presidency and 12 others were in the process of electrification. The number of licenses, excluding those revoked, but including sanctions under Section 28 of the Indian Electricity Act, actually in operation at the beginning of the year under report was 54, while, at the end of the year, the number operating was 60.

(2) *Electricity Duty.*

The Electricity duty was first imposed by the Finance Act of 1932 and has continued to be in operation in the succeeding years. The receipts from the tax amounted to Rs. 9,64,744 during 1934-35, as compared with Rs. 9,39,884 for the preceding year. These receipts are credited to the head 'XXXV-Miscellaneous (Provincial)' with effect from the year 1933-34.

(3) *Electric Works.*

Under this head the expenditure incurred was as follows :—

	Rs.
On works	51,782
On repairs	1,67,020

The most important original work undertaken during the year under review was the electrification of the Government buildings at Jacobabad estimated to cost Rs. 15,860. This work was given out on contract and completed in all respects at an outlay of Rs. 15,213. One hundred and sixty-eight other original works were also carried out at an aggregate cost of Rs. 51,776. One hundred and five special repair works were carried out during the year. The most important work among these was the changing over of the entire electric installation at Government House, Ganeshkhind, to the mains of the Poona Electric Supply Company, which was completed during the year at a total outlay of Rs. 25,276, the expenditure during the year being Rs. 1,700.

C—COMMUNICATIONS.

Under this head the expenditure incurred was as follows :—

	Rs.
On works	12,35,809
On repairs	27,92,185
	40,27,994

The principal works completed or nearly completed during the year were :—

Improvements to and widening of the Manor-Varoti Road. Surveying and preparing projects for constructing a bridge over the Dorotha river on the Talasari-Vapi Road.	Thana Division.
Constructing a link road from Damanganga to Vapi (2 miles) on Talasari-Vapi Section. Construction of bridges over 12 nallas on the Surat-Sahol Section of the Bombay-Ahmedabad Road.	Surat and Broach Divisions.

Surveying and preparing projects for causeways over the Kanewal Kotar and the Mohor river on Mehmedabad-Mahuda Road (Section III).	Kaira and Panch Mahals Division.
Improvements to certain low-lying miles between Igatpuri and Ghoti on the Bombay-Agra Road and miles 75 to 84 on the Khandala-Poona Section of the Bombay-Poona Road.	Nasik and Poona Divisions.
Constructing a new bridge over the Mosam river at Malegaon on Vihigaon-Nasik-Malegaon Section of the Bombay-Agra Road.	Nasik Division.
Asphalting Fitzgerald Bridge, Poona, and its approaches.	Poona Division.
Constructing Warsa-Borzar Road, Section I ..	Khandesh Division.
Improvements to the Kumta-Hubli Road ..	Dharwar Division.
Improving the Sadashivgad-Kadra Road ..	Kanara Division.
Constructing a masonry bridge across the Gad river near Kankavli on the Malwan-Phonda Road. Constructing a masonry bridge across the Janoli river on the Malwan-Phonda Road. Constructing a masonry bridge across the Kasal river in mile 22 of the Malwan-Phonda Road. Constructing a bridge over the Beni nalla in mile 10 of the Malwan-Phonda Road. Constructing masonry drains with R. C. C. slabs over 146 nallas on Vadkal-Mahad and Mahad-Poladpur Sections of the Dharamtar-Mahableshwar Road.	Ratnagiri Division.

The following important works were in progress :—

Constructing a high level causeway over the Balganga river and diversion in mile 4/3 of the Pen-Panvel road. Constructing a diversion of the Bombay-Agra Road outside Thana town. Constructing a section from Talasari to Vapi of the Bombay-Ahmedabad-Rajputana Road. Constructing a bridge over the Pinjal river in mile 9/2 of the Khodala-Mokhada Road.	Thana Division.

G. P. Z. P. 1936

SOUTHERN CIRCLE—RATNAGIRI DIVISION.

A Masonry Bridge over the Gad River at Kankavli in Mile No. 29 of Malwan Phonda Road.

Upstream View of the Bridge having 12 Spans of 30′ each.

Commenced in November 1931. Completed in June 1934.

Estimated Cost (Reduced) Rs. 1,29,340.

Actual Expenditure Rs. 1,28,503.

G. P. Z. P. 1936.

SOUTHERN CIRCLE—RATNAGIRI DIVISION.

A Masonry Bridge over the Beni Nalla in Mile No 10 of Pali Phonda Road.
Downstream View of the Bridge having 3 Spans of 30′ each.
Commenced in April 1934. Bridge opened in April 1935.
Estimated Cost (Reduced) Rs. 34,650.
Total Expenditure to-date Rs. 25,961.

Constructing a diversion around Pardi on the Vapi-Bulsar Section of the Bombay Ahmedabad road. Improving miles 4 to 9/6 of the Matwad Navsari Section of the Bombay Ahmedabad road.	Surat and Broach Division.
Metalling and improving the road from Viramgam to Mandal.	Ahmedabad Division.
Constructing Dhadgaon-Shahada road Section IV. Additional works in connection with the improvements to the Taloda-Shahada road Sections I and II.	Khandesh Division.
Improving the Karwar Bellary Road, miles 1 to 75.	Kanara Division.
Modernising certain roads in Poona ..	Poona Division.
Reconstruction of the Karachi-Kotri Road ..	Karachi Buildings and Karachi Canals Divisions.
Improvements to the Hyderabad-Hala Road	Hala Division.

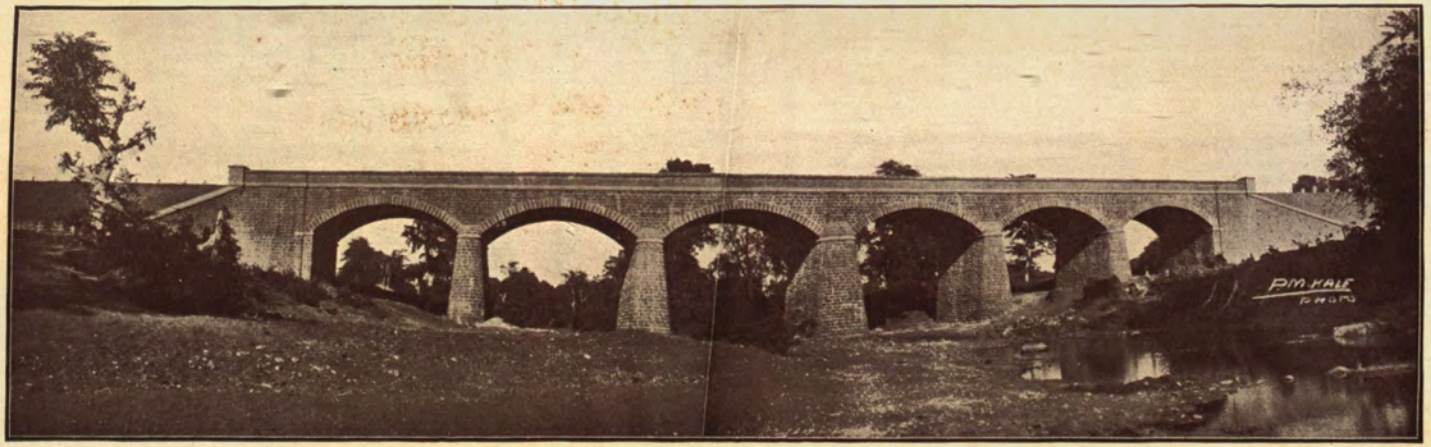
Asphalting was in progress during the year under report on the roads detailed below :—

(1) Portion of road from the Railway Station (Sholapur) to the Panjrapole near Sholapur on the Bombay-Poona-Sholapur-Hyderabad Road. (2) Portion of road near the Municipal water works pumping Station at Sholapur on the Bombay-Poona-Sholapur-Hyderabad road.	Sholapur Division.
(3) Roads in and around Belgaum.. .. (4) Miles 261 to 263, 267 to 274/4 of the Poona-Bangalore Road.	Belgaum Division.
(5) Sukkur-Shikarpur Road	Shikarpur Canals Division.

The following works were financed from the Petrol Tax fund and the expenditure incurred on them during the year was as shown below :—

Constructing Talasari-Vapi Section (Links still required, miles 16½) ..	Rs. 60,258	Thana Division.
Improving Manor-Varoti Section	Rs. 3,398	
Bridge over the Pinjal river in mile No. 9/2 of Khodala-Mokhada Road ..	Rs. 9,732	

Constructing diversion road outside Thana Town from mile 22/2 to 23/4 and providing 2″ new metal coat and 2½″ Shelmacadam surface over the diversion .. Rs. 23,267 High level causeway over the Balganga river and diversion in mile 4/5 of Panvel-Pen Section .. .. Rs. 31,067	Thana Division.
Constructing the link road from Damanganga to Vapi (2 miles on Talasari-Vapi Section) .. .. Rs. 3,491 Improving miles 4 to 9/6 of Matwad-Navsari Section .. .. Rs. 2,099 Diversion round Pardi on Vapi Bulsar Section .. .. Rs. 1,095 Constructing bridges, etc., on 12 nallas on Surat Sahol Section .. Rs. 332.	Surat and Broach Division.
Metalling and improving Viramgam Mandal Road .. .. Rs. 42,169	Ahmedabad Division.
Constructing a bridge to replace the dangerous bridge over the Mosam river at Malegaon on Vihigaon-Nasik-Malegaon Section .. .. Rs. 51,847 Improving low lying sections (miles 86 to 90, 93 and 97) of Bombay-Agra Road near Igatpuri .. .. Rs. 29,989 Experimental work—Treating surface G of Nasik Station Road with socony 101 E Semigrout with seal coat .. Rs. 819	Nasik Division.
Submersible bridge over the Kukdi river in mile No. 53 of Poona-Nasik Road .. .. Rs. 999 Improvements to low-lying miles 75–84 on Poona side of Khandala on Khandala-Poona Section .. .. Rs. 7,376 Modernising of certain roads in Poona .. .. Rs. 37,573 Providing 2″ asphalt macadam (full grout) on the Fitzgerald bridge, Poona and its approaches .. Rs. 9,698	Poona Division.
Causeway over the Karha river at Baramati Rs.7,002	Poona Irrigation Division.
Asphalting the portion of Sholapur-Osmanabad Road from the Railway Station to the Panjrapole and the portion of Sholapur-Osmanabad road near the Municipal Water Works Pumping Station .. Rs. 16,328	Sholapur Division.



G. P. Z. P. 1936.

SOUTHERN CIRCLE—RATNAGIRI DIVISION.

A Masonry Bridge over the "Kasal" River in Mile No. 21 of Malwan Phonda Road Section No. II.

Upstream View of the Bridge having 6 Spans of 30′ each.

Commenced in April 1932. Completed in June 1934.

Estimated Cost (Reduced) Rs. 85,630.

Actual Expenditure Rs. 85,238.

Asphalting the road between Hubli and Bhairidevarkoppa .. Rs. 10,551	Dharwar Division.
Asphalting miles Nos. 261 to 263 of Poona-Bangalore Road .. Rs. 22,570	
Asphalting miles Nos. 267 to 270 of Poona-Bangalore Road .. Rs. 17,708	
Improvements to miles 0 to 71/5 of Kumta-Hubli Road .. Rs. 34,992.	
Improvements to miles 71/6 to 78 of Kumta-Hubli Road .. Rs. 4,137	
Construction of causeways over certain nallas between Navalgund, Nargund and Konnur .. .. Rs. 28,823	
Extending the flank walls and paving the existing causeway over the Ghatapraba river at Anagwadi .. Rs. 10,999	Belgaum Division.
Asphalting of certain roads near and about Belgaum .. Rs. 39,613	
Bridge over the Bhamburda river on Math Kasal Road .. Rs. 1,465	
Masonry drains with reinforced cement concrete slabs over 146 nallas on Vadkal-Mahad and Mahad Poladpur Sections .. Rs. 30,517	Ratnagiri Division.
Bridge over the Gad river near Kankavli on the Section from Phonda to the border of Ratnagiri near Kankavli Rs. 9,995	
Bridge over the Janaoli river on Malwan-Phonda Section (Phonda to Kankavli) .. " .. Rs. 9,373	
Bridge over the Kasal river on Malwan-Phonda Section (border of Ratnagiri to Kasal) .. .. Rs. 17,591	
Masonry drains with reinforced cement concrete slabs over 15 nallas and 1 culvert over large nalla in Section I of Pali-Phonda Road .. Rs. 9,932	
Masonry drains with reinforced cement concrete slabs over 8 small nallas in Section III of Hatkhamba-Poladpur Road.. Rs. 4,960	
Bridge over Beni Nala in mile No. 10 of Pali-Phonda Road .. .. Rs. 25,965	
Constructing 5 culverts in Section II of Hatkhamba-Poladpur Road .. Rs. 12,006	
Improvements to Khanapur Yellapur Road .. .. Rs. 14,963	Kanara Division.
Improving Karwar-Bellary Road (miles 1 to 75) .. .. Rs. 29,927	

Survey for the preparation of plans and estimates and taking trial borings in connection with the following projects :—

(1) Bridge over the Doroth river on Talasari-Vapi Section—Thana Division .. .. Rs. 518

(2) Improvements to Pen-Panvel Section—Thana Division .. .. Rs. 899

(3) Causeway over the Kanewal Kotar in mile No. 15 on Mehmedabad-Dakor Section—Kaira & Panch Mahals Division .. .. Rs. 114

(4) Causeway over Mohor river on Mehmedabad Dakor Section—Kaira & Panch Mahals Division .. Rs. 199

(5) Metalling and constructing culverts on Godhra Pali Section—Kaira & Panch Mahals Division .. Rs. 288

(6) Bridge over the Malaprabha river at Mugutkhan-Hubli Road—Belgaum Division .. Rs. 1,068

Submersible bridge over the Girna river at Mehunbara on Dhulia-Aurangabad Road—Khandesh Division .. Rs. 37

Asphalting miles Nos. 0 to 6 of Sukkur-Shikarpur Road .. Rs. 74,039 Asphalting miles Nos. 6 to 20/0 of Sukkur Shikarpur Road .. Rs. 99,508		Shikarpur Canals Division.
Improvements to the Section from Sakrand to Moro .. .. Rs. 38		Dad Division.
Improvements to the section from Hyderabad to Hala .. .. Rs. 13,764		Hala Division.
Reconstructing Road ..	Karachi-Kotri ..Rs. 2,26,429	Karachi Buildings & Karachi Canals Divisions.

Repairs to communication works to the extent of Rs. 48,096 were executed out of the Petrol Tax Fund.

Arboriculture.

Nurseries were maintained at various places and the planting, watering and protection of roadside trees continued to receive attention as usual. About 36,323 trees were planted during the year along Provincial and Local Fund roads in charge of this Department.

D.—Miscellaneous.

Under this head the expenditure incurred was as follows :—

	Rs.
On works	1,95,760
On repairs	2,91,748
	4,87,508

Public Health, Water Supply and Drainage Works.

During the year under report designs, specifications and preliminary estimates were prepared for the installation of the plant required for water works at Sirur,' Surat, Dharwar and Hubli. The work of constructing foundations for the new plant at Pandharpur Water Works was completed and the erection of the new machinery is in progress. An electric motor to drive a pump of capacity 4,20,000 gallons per hour was installed at the Bahiroba Pumping Station at an estimated cost of Rs. 38,100. The work of remodelling the Mutha Right Bank Canal, which has been undertaken to assist in the matter of the canal closure periods required, and the clearance of silt and weeds from the canal and also for the impounding of a reserve supply of water required for supply to the Cantonment and Poona City Water Works was in progress. The construction of the pick-up weir and the Service Reservoir at the Water Supply Scheme at Khed was completed and pipe laying is in progress. The Shikarpur Drainage scheme estimated to cost Rs. 2,80,141 was in progress. The works pertaining to the water supply and drainage required in connection with the development of the Artillery Maidan at Karachi are in progress. The following important works were maintained during the year :—

(1) The Poona Water Works.

(2) The Kirkee Water Works including Pashan and Holkar's Bridge Water Works.

(3) The Ambernath Water Works.

(4) The Alandi Water Works.

(5) The Matheran Water Works.

(6) The Ratnagiri Water Works.

(7) The Poona Sewage Works.

(8) The water works at Karad, Satara Camp and Pandharpur.

E.—Technical Papers.

The following Public Works Department technical papers were issued during the year :—

No. 49. Development of Irrigation in the Deccan Canal areas by C. C. Inglis, B.A., B.A.I., M.Inst.C.E., Superintending Engineer, Deccan Irrigation Circle, and V. K. Gokhale, B.Ag., Deputy Soil Physicist, Irrigation Research Division.

No. 50.- Bridge over Krishna River at Udgaon on the Kolhapur-Miraj Road by A. Bhatacharya, L.C.E., I.S.E., Executive Engineer, Belgaum Division.

No. 51. Note on experiments carried out with a short-crested weir model by C. C. Inglis, B.A., B.A.I., M.Inst.C.E., Superintending Engineer, Deccan Irrigation Circle, Poona, and D. V. Joglekar, B.E., Assistant Engineer.

No. 52. Factors affecting exclusion of bed silt from Canals taking off from alluvial Rivers by C. C. Inglis, B.A., B.A.I., M.Inst.C.E., Superintending Engineer, Deccan Irrigation Circle, and D. V. Joglekar, B.E., Assistant Engineer.

No. 53. Note on the results of silt analysis carried out in the Development and Research Division by C. G. Hawes, M.C., B.Sc. (Lond.), A.C.G.I., M.Inst.C.E., I.S.E., Executive Engineer, Development and Research Division.

F.—Railways.

The railways situated within the Bombay Presidency are not administered by this Government but are under the general control of the Railway Board.

2. The railway budget for the year 1935-36, although a deficit one, shows a marked improvement over that for the previous year.

The total deficit for the year 1935–36, inclusive of the loss incurred on strategic lines, is estimated at Rs. 190 lakhs compared with the revised deficit estimated at Rs. 4¼ crores for the year 1934-35.

No new lines were opened for traffic in the Bombay Presidency during the year 1934-35. A loop line from Jhudo to Pithoro, a distance of 64·11 miles, was under construction during the year and it was opened for all traffic on 1st June 1935.

New traffic surveys of the following projects were carried out during the year :—

(1) Bulsar-Dharampur Railway.

(2) Thasra-Virpur Railway.

(3) Nandurbar-Khetia Railway.

(4) Sind Right Bank Feeder Railways.

Further consideration of the projects Nos. 1-3 has been abandoned as it is anticipated that the lines in question would prove unremunerative in operation.

The Indian States within the geographical limits of the Bombay Presidency have, with effect from 1st April 1933, been brought into direct political relations with the Government of India and the control previously exercised by this Government over these States has been withdrawn with effect from that date.

The total length of the railways in the Presidency (including Sind but excluding Indian States) open for traffic during the year under review was 3,561·581 miles made up as shown below :—

—	Broad gauge miles.	Metre gauge miles.	Narrow gauge miles.	Total miles.
Bombay Baroda and Central India Railway.	541·254	119·888	144·069	805·211
Great Indian Peninsula Railway	822·321	....	62·064	884·385
Madras and Southern Mahratta Railway.	....	587·875	....	587·875
North Western Railway ..	817·52	....	129·68	947·20
Jodhpur Railway	....	223·91	....	223·91
Barsi Light Railway ..	....	....	113·000	113·000
Total ..	2,181·095	931·673	448·813	3,561·581

G.—Development Schemes.

I. Back Bay Reclamation Scheme.

The total expenditure incurred on the Back Bay Reclamation Scheme during the year 1934–35 amounted to Rs. 1,46,931, including Rs. 40,954 spent on repairs. The following works were carried out during the year :—

(1) Approximately 7,05,600 cubic feet of building debris, obtained free of cost, were deposited and spread in Block No. 7 at a cost of Rs. 4,497. The work of providing a road 48 feet wide, including two foot paths, 7 feet and 10 feet wide, respectively, drainage and lighting arrangements from the South end of Cuffe Parade to the South end of Block V is in progress. This work is being carried out by the Bombay Municipality on behalf of Government. The work of providing a sewerage scheme in Blocks 1 and 2 with two ejector stations has also been undertaken by the Bombay Municipality. The work of planting trees along a part of the Marina and Church Gate Street extension was in progress.

(2) *Sanitation and anti-malarial measures.*—The work has been carried out during the year under report by the Bombay Municipality on behalf of Government, on payment of the sum of Rs. 4,775 by the latter.

(3) *Repairs and maintenance.*—A sum of Rs. 8,697 was spent during the year on the maintenance of the new sea wall and rubble mound. No serious damage was caused during the last monsoon. The roads in Blocks Nos. 1 and 2 were maintained for the passage of light motor traffic at a cost of Rs. 6,987.

(4) *Disposal of surplus stores, plant, etc.*—Some rolling stock and other miscellaneous articles of surplus stores and plant were disposed of during the year. The total realisations amounted to Rs. 80,235.

(5) A list of the members of the Standing Advisory Committee for the Back Bay Reclamation Scheme will be found in Appendix VII.

II. Suburban Scheme.

(1) *Water supply.*—The following works included in the Salsette Water Supply Scheme were in progress :—

(*1*) Providing water supply to Nagardas Road at Andheri.

(*2*) Laying branch pipe lines for miscellaneous extensions in some of the sub-schemes.

(*3*) Supplying water meters of various sizes to the public.

(*4*) Surveys and preparation of the detailed plans and estimate of the Kanheri Valley Storage Project.

The transfer of the Khar Water Supply scheme to the Bandra Municipality was effected on 22nd April 1934. The total expenditure and receipts involved in the water supply schemes amounted to—

	Expenditure.	Receipts.
	Rs.	Rs.
Salsette Water Supply scheme..	3,57,368	5,41,198
Ambernath Water Works ..	24,599	18,145

The fall in revenue in the Ambernath Water Works during the year as compared with that obtained in the previous year was due to a reduction in the rate charged from Re. 1 to annas 8 per 1,000 gallons, introduced during the course of the year and to a strike at the Western India Match Factory.

(2) *Ambernath Electric Supply Scheme.*—The expenditure and receipts on the scheme amounted to Rs. 13,163 and Rs. 16,634 respectively.

APPENDIX I.

Statement showing the expenditure on Civil and Military Works during the year 1934-35.

Service Head	Original Works		Repairs		Total	
	Grant	Outlay	Grant	Outlay	Grant	Outlay
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
50—*Military Works.*						
Works	..	..	6,826	6,808	6,826	6,808
Establishment—Non-voted ..	..	..	..	..	1,725	579
Establishment—Voted	..	..	..	..	....	2,114
Tools and Plant ..	..	..	..	..	207	137
Total, Military Works.	..	..	6,826	6,808	8,758	9,638
41—*Civil Works—Central.*						
Buildings—Non-voted	600	525	20,129	19,798	20,729	20,323
Buildings—Voted ..	20,567	19,139	1,62,375	1,56,806	1,82,942	1,75,945
Miscellaneous—Voted.	..	..	5,000	5,014	5,000	5,014
Establishment—Voted	..	..	..	..	45,348	49,492
Establishment—Non-voted	..	..	..	..	5,196	17,353
Tools and Plant—Voted	..	..	..	..	5,656	2,508
Tools and Plant—Non-voted ..	..	..	..	..	....	....
Grant-in-aid—Non-voted	..	..	..	..	2,600	2,600
Deduct—English cost of stores and establishment ..	..	..	..	..	....	....
Loss or Gain by Exchange Expenditure in England ..	..	..	..	..	....	....
Total, 41—Civil Works—Central ..	21,167	19,664	1,87,504	1,81,618	2,67,471	2,73,235
41—*Civil Works—Provincial.*						
Buildings—Reserved .	50,000	49,838	1,95,000	1,94,038	2,45,000	2,43,876
Buildings—Transferred ..	4,57,345	4,30,684	40,47,419	12,06,803	57,61,975	16,37,487
Communications ..	12,28,623	12,12,347		27,92,185		40,04,532
Miscellaneous ..	28,588	26,956		29,768		56,724
Carried over ..						

Service Head	Original Works		Repairs		Total	
	Grant	Outlay	Grant	Outlay	Grant	Outlay
1	2	3	4	5	6	7
Brought over ..	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
41—*Civil Works—Provincial*—contd.						
Establishment—Reserved—Non-voted	..	..	..	..	....	28,731
Voted	..	..	..	..	....	76,569
Establishment—Transferred—Non-voted ..	..	..	..	..	13,71,858	5,10,695
Voted	..	..	..	..	49,05,440	15,72,734
Tools and Plant—Reserved ..	..	..	..	..	....	6,074
Tools and Plant—Transferred ..	..	..	..	..	2,31,183	1,40,056
Grant-in-aid ..	..	..	..	..	8,73,292	8,52,125
Suspense ..	..	..	..	..	93,856	16,868
Deduct—English Cost of Stores and Establishment ..	..	..	..	..	....	....
Stores—Transferred.	..	..	..	..	—6,440	—6,296
Establishment—Transferred—Non-voted ..	..	..	..	..	—2,32,000	—2,64,676
Voted	..	..	..	..	—5,100	—6,661
Loss or Gain by Exchange—Stores ..	..	..	..	..	....	—22
Loss or Gain by Establishment—Non-voted	..	..	..	..	....	—650
Loss or Gain by Establishment—Voted ..	..	..	..	..	....	—12
Expenditure in England—Stores ..	..	..	..	..	6,440	6,318
Establishment—Non-voted	..	..	..	..	2,32,000	2,65,326
Establishment—Voted.	..	..	..	..	5,100	6,675
Total, 41—Civil Works—Provincial.	17,64,556	17,19,825	42,42,419	42,22,794	1,34,82,604	91,46,473
60—*Civil Works.*						
Buildings ..	1,47,800	1,44,576	..	..	1,47,800	1,44,576
Communications ..	25,873	23,462	..	..	25,873	23,462
Miscellaneous ..	..	..	..	..	....	....
Establishment—Non-voted ..	..	..	..	..	....	8,353
Establishment—Voted ..	..	..	..	..	240	29,925
Tools and Plant ..	..	..	..	..	....	1,277
Total, 60—Civil Works.	1,73,673	1,68,038	..	..	1,73,913	2,07,593
District Local Fund ..	..	..	..	..	....	19,996
Deposit Contributions ..	..	..	..	..	....	2,69,600
Grand Total ..	19,59,396	19,07,527	44,36,749	44,11,220	1,39,32,746	92,26,535

APPENDIX II.

APPENDIX

Statement of roads not within Municipal limits, giving lengths of metalled during the

Name of Circle.	Name of Division.	Length of metalled roads maintained by the Public Works Department.	Length of unmetalled roads maintained by the Public Works Department.	Length of metalled roads maintained by the Local Authorities.
1	2	3	4	5
Presidency Proper.		Miles.	Miles.	Miles.
Northern Circle..	Thana	(*a*)437·32	(*b*)5·63	(*c*)421·43
	Surat	(*f*)183·65	9·44	(*g*)137·33
	Broach	53·98	....	34·84
	Kaira	(*j*)179·90	9·13	(*k*)60·41
	Panch Mahals ..	156·29	17·50	(*l*)30·49
	Ahmedabad ..	(*n*)146·13	(*o*)49·30	(*p*)59·61
	Total, Northern Circle ..	1,157·27	91·00	744·11

Note.—The lengths of Provincial roads included in columns 3 and 4 of the above Municipalities in the Bombay Presidency are not required to contribute towards the shown in the "Remarks" column.

(*a*) and (*b*) The decrease of 12·03 miles and 2·49 miles as compared with the previous No. II, Andheri, having been transferred to the Bandra and Vile Parle Municipalities for been deprovincialised during the year.

(*c*) and (*d*) The increases of 49·92 miles and 197·94 miles are due partly to District now been communicated and partly to some of the roads maintained by the Taluka Local having been taken into consideration by that body and reported during the year.

(*e*) The increase of 7·79 miles is due to lengths of roads falling within the extended falling within the Thana Municipal limits having now been added. Corresponding reduc-

(*f*) The increase of 1·75 miles is due to a new metalled road (Vapi to Talasari) having

(*g*) The increase of 2·17 miles is due partly to the addition of certain new lengths unmetalled lengths having been metalled by the Board during the year.

(*h*) The increase of 12·02 miles is due to certain new lengths of roads having been

(*i*) The increase of 12·01 miles is due to certain new roads having been taken up by the

(*j*) The decrease of ·80 mile is due to certain lengths of roads having been found short,

(*k*) The increase of ·28 mile is due to certain unmetalled length having been metalled

(*l*) The increase of 2·13 miles is due partly to certain unmetalled lengths of roads having having been taken up for maintenance by the Board during the year.

(*m*) The decrease of 1·75 miles is due partly to the conversion of certain unmetalled length having been abandoned by the Board during the year.

(*n*) and (*o*) The increase of 3·66 miles in column 3 and the corresponding decrease in

(*p*) and (*q*) The increase of 1·01 miles in the metalled length in column 5 and the length having been metalled by the District Local Board, Ahmedabad, during the year

II.

and unmetalled roads maintained by the Public Works Department and Local Authorities year 1934–35.

Length of unmetalled roads maintained by the Local Authorities.	Total length of metalled roads.	Total length of unmetalled roads.	Remarks.	
			Metalled roads maintained by the Public Works Department in Municipal limits.	Unmetalled roads maintained by the Public Works Department in Municipal limits.
6	7	8	9	10
Miles.	Miles.	Miles.	Miles.	Miles.
(*d*)272·37	858·75	278	(*e*)30·83	....
(*h*)313·68	320·98	323·11	....	....
(*i*)190·81	88·82	190·81	1·36	....
12·01	240·31	21·14	10·61	....
(*m*)18·26	186·78	35·76	1·38	....
(*q*)299·46	205·74	348·77	....	....
1,106·59	1,901·38	1,197·59	44·18	....

statement are exclusive of the portions passing through the Municipal limits. The maintenance of Provincial roads passing through their limits and the lengths of these are

report is due partly to Santa Cruz-Vakola Road and roads in Town Planning Scheme maintenance and partly to the roads, viz. Parol to Barkiapada and Sativli Khind, having

Local Board having resurveyed their roads and correct lengths actually arrived at having Boards in Kolaba District previously omitted by the District Local Board, Kolaba,

areas of Bandra and Vile Parle Municipalities and of diversion road outside Thana town tion has been made in the length in column 3.

been constructed and added to the metalled length during the year.

constructed by the District Local Board, Surat, during the year and partly to certain

taken over by the District Local Board for maintenance during the year.

District Local Board for maintenance during the year.

when actually measured while preparing road charts during the year.

by the District Local Board, Kaira, during the year.

been metalled by the District Local Board and partly to certain new metalled roads

length into metalled one by the Board during the year, and partly to certain unmetalled

column 4 is due to certain unmetalled length having been metalled during the year.

corresponding decrease in the unmetalled length in column 6 is due to certain unmetalled

Name of Circle.	Name of Division.	Length of metalled roads maintained by the Public Works Department.	Length of unmetalled roads maintained by the Public Works Department.	Length of metalled roads maintained by the Local Authorities.
1	2	3	4	5
Presidency Proper—contd.		Miles.	Miles.	Miles.
Central Circle ..	Poona	(*a*)512·89	14·62	(*b*)263·29
	Sholapur	(*e*)477·15	(*f*)76·46	(*g*)352·28
	Nasik	(*k*)471·73	9·20	(*l*)164·62
	Khandesh	(*o*)665·31	(*p*)16·12	300·96
	Total, Central Circle ..	2,127·08	116·40	1,081·15

Note.—The lengths of Provincial roads included in columns 3 and 4 of the above state separately in columns 9 and 10.

(*a*) The increase of 40·65 miles as compared with previous report is partly due to the been taken over by the Public Works Department on 1st April 1934 for maintenance shown in column 3 now included in Municipal limits (column 9).

(*b*) The decrease of 57·48 miles is due to the resumption of the Poona-Nasik Road by by the District Local Board during the year.

(*c*) The increase of 210·02 miles is due to certain approach roads and abandoned less certain unmetalled lengths metalled during the year.

(*d*) The increase of 12·91 miles is due to portions of certain roads previously shown in

(*e*) The increase of 5·72 miles is partly due to the adoption of correct lengths of certain lengths which were previously erroneously shown as outside Municipal limits and which

(*f*) The decrease of 19·36 miles is due to reasons explained under (*e*) above.

(*g*) The increase of 5·75 miles is due to portions of certain unmetalled lengths having

(*h*) The increase of 32·99 miles is due to some cart tracks having been taken over for the year.

(*i*) and (*j*) The increases of 8·20 and 2·50 miles are due to portions of certain roads Municipal limits.

(*k*) The decrease of about 4·78 miles is due to portions of certain roads which were

(*l*) The decrease of 4 miles is due to the transfer of Nanashi Ghat road to the Forest

(*m*) The increase of 74·66 miles is due to additional roads being maintained by the

(*n*) The increase of 4·80 miles is due to portions of certain roads which were erroneously

(*o*) and (*p*) The decreases of 2·06 miles and ·19 mile are due to portions of certain Municipal limits.

(*q*) The increase of 18·08 miles is due to the construction of new roads in the East and

(*r*) and (*s*) The increases of 1·91 miles and ·35 mile are due to portions of certain and also to adoption of correct lengths.

II—*contd.*

Length of unmetalled roads maintained by the Local Authorities.	Total length of metalled roads.	Total length of unmetalled roads.	Remarks.	
			Metalled roads maintained by the Public Works Department in Municipal limits.	Unmetalled roads maintained by the Public Works Department in Municipal limits.
6	7	8	9	10
Miles.	Miles.	Miles.	Miles.	Miles.
(*c*)2,423·82	776·18	2,438·44	(*d*)65·34	....
(*h*)961·47	829·43	1,037·93	(*i*)32·44	(*j*)2·50
(*m*)1,485·24	636·35	1,494·44	(*n*)19·58	0·30
(*q*)660·12	966·27	676·24	(*r*)32·26	(*s*)1·53
5,530·65	3,208·23	5,647·05	149·62	4·33

ment are exclusive of the portions passing through Municipal limits which latter are shown

whole of the Poona-Nasik Road in charge of the District Local Board, Poona, having and to corrections in lengths of certain roads, less portions of certain roads previously

the Public Works Department and to certain unmetalled lengths having been metalled

lengths of roads having been taken over for maintenance by the District Local Boards

column 3 having been now included in column 9.

roads and partly to the conversion of unmetalled roads into metalled roads *minus* certain are now included in column 9.

been metalled during the year.

maintenance by the District Local Board less certain unmetalled lengths metalled during

which were previously erroneously included in columns 3 and 4 and are now shown within

erroneously included in column 3 and are now included in column 9.

Department.

District Local Board during the year.

included in column 3 and are now shown within Municipal limits.

roads which were erroneously shown as outside Municipal limits and are now shown within

West Khandesh Districts.

roads previously shown as outside Municipal limits being now shown in Municipal limits.

Name of Circle.	Name of Division.	Length of metalled roads maintained by the Public Works Department.	Length of unmetalled roads maintained by the Public Works Department.	Length of metalled roads maintained by the Local Authorities.
1	2	3	4	5
		Miles.	Miles.	Miles.
Presidency Proper —contd.				
Southern Circle ..	Belgaum	(*a*)601·90	(*b*)90·35	(*d*)296·61
	Dharwar	549·76	99·07	(*d*)550·98
	Ratnagiri	(*c*)500·91	....	(*d*)407·19
	Kanara	385·80	194·08	(*d*)108·40
	Total, Southern Circle ..	2,038·37	383·50	1,363·18
Deccan Irrigation Circle.	Poona Irrigation ..	(*e*)263·41	....	....
	Nira Right Bank Canal ..	(*f*)30·42	....	....
	Ahmednagar ..	298·77	57·57	(*g*)474·40*
	Nasik Irrigation ..	47·00	....	....
	Total, Deccan Irrigation Circle.	639·60	57·57	474·40

(*a*) The decrease of 14·25 miles as compared with the previous report is due to the addition of certain portions of unmetalled roads having been metalled during the

(*b*) The decrease of 5·50 miles is due to certain unmetalled portions of Sholapur having been metalled during the year.

(*c*) The increase of 26·42 miles is partly due to the transfer of the Math-Kasal Road bridges and approach roads.

(*d*) The lengths of metalled and unmetalled roads maintained by Local Board

(*e*) The increase of 39·31 miles as compared with the previous report is due to the Right Bank Canal Division along with the Bhatgar Sub-division and 1 mile of Hadapsar-

(*f*) The decrease of 38·31 miles in the Nira Right Bank Canal Division is due to the

(*g*) The increase of 16·87 miles is due to corresponding length in column 6 being now

*Out of these 185·19 miles are Provincial roads maintained by the District Local

II—*contd.*

Length of unmetalled roads maintained by the Local Authorities.	Total length of metalled roads.	Total length of unmetalled roads.	Remarks.	
			Metalled roads maintained by the Public Works Department in Municipal limits.	Unmetalled roads maintained by the Public Works Department in Municipal limits.
6	7	8	9	10
Miles.	Miles.	Miles.	Miles.	Miles.
(*d*)433·18	898·51	523·53	21·51	....
(*a*)365·31	1,100·74	464·38	19·95	4·49
(*d*)988·66	908·10	988·66	17·36	....
(*d*)512·35	494·20	706·43	19·49	3·83
2,299·50	3,401·55	2,683·00	78·31	8·32
....	263·41	....	0·77	....
....	30·42	....	2·00	....
300·56	773·17	358·13	6·32	....
....	47·00	....	....	....
300·56	1,114·00	358·13	9·09	....

transfer of the Math-Kasal Road from Belgaum to Ratnagiri Division and year.

Hubli Road, I Section, Bijapur-Shihdgi Road, II Section, and Karad-Bijapur Road,

from Belgaum to Ratnagiri Division and partly due to the construction of several new

Authorities shown herein are as now reported by the Local Bodies concerned.

transfer of Hadapsar-Nira Road and portion of Mahad-Pandharpur Road from the Nira Nira Road transferred from the Central Circle, respectively.

transfer of Bhatgar Sub-division to the Poona Irrigation Division.

metalled during the year.

Board, Ahmednagar.

APPENDIX

Name of Circle.	Name of Division.	Length of metalled roads maintained by the Public Works Department.	Length of unmetalled roads maintained by the Public Works Department.	Length of metalled Roads maintained by the Local Authorities.
1	2	3	4	5
		Miles.	Miles.	Miles.
Sind.				
Northern Sind Circle.	Shikarpur Canals ..	(*a*)20·38	(*b*)	11·38
	Barrage	....	....	(*c*)7·84
	Begari Canals ..	8·00	22·50	....
	Khirtar	....	....	....
	North Western Canal ..	....	....	....
	Total ..	28·38	22·50	19·22
Southern Sind Circle.	Karachi Buildings ..	37·75	132·25	9·37
	Karachi Canals ..	(*g*)19·25	(*h*)52·80	2·00
	Hyderabad ..	3·12	15·25	5·13
	Nasir	....	14·75	5·50
	Fuleli Canals ..	3·50	56·44	4·63
	Total ..	63·62	271·49	26·63

(*a*) The decrease of ·83 mile as compared with previous report is due to the transfer

(*b*) A length of 2·18 miles shown in previous report was transferred to the Local

(*c*) and (*d*) The mileages shown are those reported by the Local Authorities during

(*e*) The decrease of 12 miles is due to the fact that the last year's figures included Upper Sind Frontier. As the figures for Upper Sind Frontier are not given separately present figure of 34 miles represents length in charge of the District Local Board,

(*f*) The increase of 10·01 miles as compared with the previous report is due to

(*g*) The increase of ·75 mile is due to a certain length of Karachi-Kotri road

(*h*) The decrease of 1·81 miles is partly due to some portion of the Sujawal Ferry unbund and partly to some portion of Karachi-Kotri road having been metalled.

II—*contd.*

Length of unmetalled roads maintained by the Local Authorities.	Total length of metalled roads.	Total length of unmetalled roads.	Remarks.	
			Metalled roads maintained by the Public Works Department in Municipal limits.	Unmetalled roads maintained by the Public Works Department in Municipal limits.
6	7	8	9	10
Miles.	Miles.	Miles.	Miles.	Miles.
996·26	31·76	996·26	....	....
(*d*)123·14	7·84	123·14	....	....
1,139·75	8·00	1,162·25	....	....
(*e*)34·00	....	34·00	....	....
201·50	....	201·50	....	....
2,494·65	47·60	2,517·15	....	....
(*f*)477·63	47·12	609·88	9·56	0·31
868·63	21·25	921·43	....	....
284·25	8·25	299·50	....	....
147·88	5·50	162·63	....	....
483·12	8·13	539·56	....	....
2,261·51	90·25	2,533·00	9·56	0·31

of the Rohri-Kandiaro Road to the Local Board during the year.

Board during the year.

the year.

lengths in the Khirtar Division in charge of the District Local Board, Larkana and for Khirtar Division, but are included in the figures for the Begari Canals Division, the Larkana, only.

certain lengths of roads having been made during the year.

having been metalled during the year.

metalled road having come within the compartment of new Sujawal loop and the old

Name of Circle.	Name of Division.	Length of metalled roads maintained by the Public Works Department.	Length of unmetalled roads maintained by the Public Works Department.	Length of metalled roads maintained by the Local Authorities.
1	2	3	4	5
		Miles.	Miles.	Miles.
Western Sind Circle.	Northern Dadu ..	....	7·62	....
	Rice Canals ..	7·81	9·00	1·00
	Warah	....	....	....
	Manchar Drainage ..	....	....	....
	Southern Dadu ..	(c)5·00	....	(d)4·00
	Total ..	12·81	16·62	5·00
Rohri Canal Circle.	Rohri	....	40·47	....
	Nasrat	1·93	1·96	2·56
	Dad	3·85	70·00	....
	Hala	6·50	(g)66·70	4·80
	Total ..	12·28	179·13	7·36
Eastern Sind Circle	Mithrao	....	13·00	4·50
	Khipro	....	35·00	2·00
	Northern Jamrao ..	....	....	14·50
	Southern Jamrao ..	....	15·12	15·00
	Total ..	....	63·12	36·00

(a) The difference of 14 miles as compared with the previous report is due to the

(b) The increase of 55·88 miles as compared with the previous report is partly due to roads in the statement for 1933–34.

(c) Includes 4 miles of murum surface.

(d) and (e) The increases of ·94 miles and 4 miles as compared with the previous

(f) The decrease of 57·5 miles as compared with the previous report is due to the

(g) The Increase of ·50 miles is due to improvements carried out to Hyderabad-Hala

(h) The difference of 2 miles as compared with the previous report is due to correct

II—*concld.*

Length of unmetalled roads maintained by the Local Authorities.	Total length of metalled roads.	Total length of unmetalled roads.	Remarks.	
			Metalled roads maintained by the Public Works Department in Municipal limits.	Unmetalled roads maintained by the Public Works Department in Municipal limits.
6	7	8	9	10
Miles.	Miles.	Miles.	Miles.	Miles.
(*a*)190·00	....	197·62	....	....
(*b*)523·50	8·81	532·50	....	....
225·50	....	225·50	....	....
205·00	....	205·00	....	....
(*c*)665·00	9·00	665·00	....	....
1,809·00	17·81	1,825·62	....	....
(*f*)281·00	....	321·47	....	....
315·44	4·49	317·40	....	....
312·00	3·85	382·00	....	....
354·30	11·30	421·00	....	....
1,262·74	19·64	1,441·87	....	....
1,032·00	4·50	1,045·00	....	....
(*h*)1,436·50	2·00	1,471·50	....	....
236·22	14·50	236·22	....	....
252·00	15·00[b]	267·12	....	....
2,956·72	36·00	3,019·84	....	....

length in question not having been included in the previous report.

the construction of new roads in Mehar Taluka and partly to non-inclusion of certain

report are due to construction of new roads.

correct mileage now reported by the local authorities.

Road.

mileage reported by the District Local Board authorities.

APPENDIX

Mileage of surfaced roads of various classes and

Province or State.	Water-bound		
	Stone metal only.		
1	2		
	Public Works Department.	Local.	Total.
Northern Circle	1,102·99	1,061·71	2,164·70
Central Circle	2,264·42	1,370·06	3,634·48
Southern Circle	1,656·37	1,155·15	2,811·52
Deccan Irrigation Circle	830·01	320·51	1,150·52
Total in the Presidency proper ..	5,853·79	3,907·43	9,761·22
Sind ..	69·50	158·16	227·66
Grand Total ..	5,923·29	4,065·59	9,988·88

Province or State.	Surface treated with tar, pitch asphalt or bitumen.		
	5		
1	Public Works Department.	Local.	Total.
Northern Circle	3·39	142·10	145·49
Central Circle	3·47	33·88	37·35
Southern Circle	1·75	....	1·75
Deccan Irrigation Circle	1·87	....	1·87
Total in the Presidency proper ..	10·48	175·98	186·46
Sind ..	37·93	156·08	194·01
Grand Total ..	48·41	332·06	380·47

III.

motorable earth roads as on 31st March 1935.

macadam.			Other low type surfaces (murum, gravel, sand, clay).		
Kunkar laterite or metal.					
3			4		
Public Works Department.	Local.	Total.	Public Works Department.	Local.	Total.
72·12	134·16	206·28	29·62	545·48	575·10
22·84	42·14	64·98	129·04	2,211·22	2,340·26
515·43	447·50	962·93	304·20	1,746·73	2,050· 3
....	....	....	57·57	317·54	375·11
610·39	623·80	1,234·19	520·43	4,820·97	5,341·40
....	7·50	7·50	44·25	367·75	412·00
610·39	631·30	1,241·69	564·68	5,188·72	5,753·40

Bitumen asphalt tar or pitch grouted macadam.			Premix bitumen asphalt tar or pitch.		
6			7		
Public Works Department.	Local.	Total.	Public Works Department.	Local.	Total.
14·01	30·17	44·18	11·61	46·54	58·15
6·62	0·06	6·68	0·62	2·37	2·99
7·92	....	7·92	1·58	....	1·58
....	....	....	....	....	....
28·55	30·23	58·78	13·81	48·91	62·72
....	1·50	1·50	0·62	2·76	3·38
28·55	31·73	60·28	14·43	51·67	66·10

APPENDIX

Province or State.	Cement concrete or macadam.		
1	8		
	Public Works Department.	Local.	Total.
Northern Circle	0·04	5·03	5·07
Central Circle	1·47	0·50	1·97
Southern Circle	....	....	....
Deccan Irrigation Circle	....	....	....
Total in the Presidency proper ..	1·51	5·53	7·04
Sind ..	3·17	10·46	13·63
Grand Total ..	4·68	15·99	20·67

III—*contd.*

Fair weather motorable earth roads.			Other motorable roads which cannot be classified under previous headings.			Remarks.
9			10			
Public Works Department.	Local.	Total.	Public Works Department.	Local.	Total.	11
61·06	515·53	576·59	..	276·80	276·80	
..	146·96	146·96	10·19	20·23	30·42	
16·00	713·59	729·59	..	216·50	216·50	
..	....	....	..	..	..	
77·06	1,376·08	1,453·14	10·19	513·53	523·72	
353·00	6,683·68	7,036·68	94·21	512·51	606·72	
430·06	8,059·76	8,489·82	104·40	1,026·04	1,130·44	

APPENDIX

Statement showing the expenditure on Provincial Buildings and

	1921-22		1922-23		1923-24	
	41-C.W. Provincial.	60-C.W.	41-C.W. Provincial.	60-C.W.	41-C.W. Provincial.	60-C.W.
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(i) Expenditure on buildings for original works in the Presidency proper ..	70,17,468	..	18,40,250	21,36,237	12,74,148	46,74,102
(ii) Do. Sind ..	12,90,750	..	2,77,527	7,11,895	1,70,426	5,52,140
	83,08,218		21,17,777	28,48,132	14,44,574	52,26,242
(iii) Expenditure on buildings for maintenance in the Presidency proper ..	11,03,987	..	13,79,087	..	15,99,041	..
(iv) Do. Sind ..	1,64,210	..	1,51,421	..	1,78,426	..
	12,68,147		15,30,508		17,77,467	
(v) Expenditure on metalled Provincial roads for original works in the Presidency proper	19,39,046	..	15,22,488	6,94,035	10,02,068	4,54,014
(vi) Do. Sind ..	42,695	..	98,466	..	73,471	..
	19,81,741		16,20,954	6,94,035	11,65,539	4,54,014
(vii) Expenditure on unmetalled Provincial roads for original works in the Presidency proper	5,00,155	..	97,110	20,903	72,046	20,943
(viii) Do. Sind ..	..	..	..	..	170	..
	5,00,155		97,110	20,903	72,216	20,943
(ix) Expenditure on metalled Provincial roads for maintenance in the Presidency proper ..	19,85,510	..	24,27,684	..	26,69,387	..
(x) Do. Sind ..	32,825	..	17,889	..	16,291	..
	20,18,335		24,45,573		26,85,678	
(xi) Expenditure on unmetalled Provincial roads for maintenance in the Presidency proper ..	2,53,711	..	2,35,632	..	2,83,378	..
(xii) Do. Sind ..	95,939	..	1,27,690	..	1,36,482	..
	3,49,650		3,63,322		4,19,860	

IV.

Roads in the Presidency Proper and in Sind from 1921–22 to 1934–35.

1924–25		1925–26		1926–27		1927–28	
41-C.W. Provincial.	60-C.W.	41-C.W. Provincial.	60-C.W.	41-C.W. Provincial.	60-C.W.	41-C.W. Provincial.	60-C.W.
8	9	10	11	12	13	14	15
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
11,72,871	36,09,799	12,24,807	38,98,209	22,22,421	17,71,645	9,72,027	13,90,972
3,18,186	8,82,055	4,53,035	13,10,549	7,27,916	7,15,071	3,47,891	3,70,005
14,91,057	44,91,854	16,77,842	52,08,758	29,50,337	24,86,716	13,19,918	17,60,977
14,69,217	..	15,22,903	....	15,95,217	..	17,04,033	..
1,91,990	..	1,74,310	....	2,06,962	..	2,46,822	..
16,61,207		16,97,213		18,02,179		19,50,855	
5,36,719	24,18,810	8,30,136	11,41,309	11,19,552	4,09,201	7,95,102	5,26,052
26,685	1,39,015	—102	30,035	11,759	99,541	81,725	1,74,995
5,63,404	25,57,825	8,30,034	11,71,344	11,31,311	5,08,742	8,76,827	7,01,047
63,591	1,14,266	1,36,210	83,048	2,50,893	..	1,65,007	..
..	..	13,043	20,788	661	..	12,313	..
63,591	1,14,266	1,49,253	53,836	2,51,554		1,77,320	
27,73,938	..	28,80,514	....	30,98,552	..	32,12,327	..
13,996	..	24,444	....	78,629	..	57,076	..
27,87,934		29,04,958		31,77,181		32,69,403	
2,81,022	..	2,53,438	....	2,55,920	..	2,82,958	..
1,30,644	..	1,31,892	....	89,724	..	1,52,444	..
4,11,666		3,85,330		3,45,644		4,35,402	

APPENDIX

1	1928-29		1929-30		1930-
	41-C.W. Provincial.	60-C.W.	41-C.W. Provincial.	60-C.W.	41-C.W. Provincial.
	16	17	18	19	20
	Rs.	Rs.	Rs.	Rs.	Rs.
(i) Expenditure on buildings for original works in the Presidency proper	9,61,174	19,07,442	8,88,923	22,83,762	7,15,423
(ii) Do. do. Sind ..	2,44,881	3,69,562	3,44,517	1,40,963	2,16,733
	12,06,055	22,77,004	12,33,440	24,24,725	9,32,156
(iii) Expenditure on buildings for maintenance in the Presidency proper ..	16,43,248	..	15,91,742	..	15,54,193
(iv) Do. do. Sind ..	2,07,847	..	2,88,022	..	2,47,047
	18,51,095		18,79,764		18,01,240
(v) Expenditure on metalled Provincial roads for original works in the Presidency proper	7,40,068	5,42,195	5,81,922	5,41,635	3,07,467
(vi) Do. do. Sind ..	98,454	1,75,326	7,919	94,001	— 2
	8,38,522	7,17,521	5,89,841	6,35,636	3,07,465
(vii) Expenditure on unmetalled Provincial roads for original works in the Presidency proper	1,05,960	..	1,11,174	..	81,815
(viii) Do. do. Sind ..	9,172	..	1,400	..	8,923
	1,15,132		1,12,574		90,738
(ix) Expenditure on metalled Provincial roads for maintenance in the Presidency proper .	30,99,797	..	30,95,981	..	29,37,136
(x) Do. do. Sind ..	65,883	..	96,560	..	55,688
	31,65,680		31,92,541		29,92,824
(xi) Expenditure on unmetalled Provincial roads for maintenance in the Presidency proper	2,67,776	..	2,54,990	..	2,98,830
(xii) Do. do. Sind ..	1,26,654	..	1,57,922	..	1,42,386
	3,94,430		4,12,912		4,41,216
(xiii) Expenditure from Road Development Fund in connection with Provincial roads for original works in the Presidency proper.	..	..	..	..	3,00,076
(xiv) Do. do. Sind ..	..	..	..	..	..
					3,00,076
(xv) Expenditure from Road Development Fund in connection with Provincial roads for maintenance in the Presidency proper.	..	..	..	..	..
(xvi) Do. do. Sind ..	..	..	..	..	..

IV—*contd.*

1	1931–32		1932–33		1933–34		1934–35	
0-C.W.	41-C.W. Provincial.	60-C.W.	41-C.W. Provincial.	60-C.W.	41-C.W. Provincial.	60-C.W.	41-C.W. Provincial.	60-C.W.
21	22	23	24	25	26	27	28	29
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
4,32,192	2,38,311	20,397	2,51,734	1,339	2,46,766	11,002	3,19,300	..
1,22,058	3,47,375	5,20,146	1,03,412	5,376	76,846	32,580	1,61,222	1,44,576
5,54,250	5,85,686	5,40,543	3,55,146	6,715	3,23,612	43,582	4,80,522	1,44,576
..	13,73,726	..	9,88,704	..	11,83,317	..	12,07,928	..
..	1,61,565	..	1,54,454	..	2,31,756	..	1,92,913	..
	15,35,291		11,43,158		14,15,073		14,00,841	
4,85,007	1,39,416	2,91,305	1,26,240	1,55,554	1,17,263	51,711	1,13,558	23,462
21,693	..	4,716	..	..	160	..	113	..
5,06,700	1,39,416	2,96,021	1,26,240	1,55,554	1,17,423	51,711	1,13,671	23,462
..	29,564	..	23,447	..	23,622	..	7,724	..
..	..	..	..	..	....	..	..	..
	29,564		23,447		23,622		7,724	
..	28,68,480	..	23,36,968	..	24,82,335	..	24,45,526	..
..	61,862	..	63,413	..	71,446	..	63,594	..
	29,30,342		24,00,381		25,53,781		25,09,120	
..	2,30,071	..	1,61,682	..	1,60,738	..	1,50,635	..
..	82,871	..	86,008	..	90,895	..	84,334	..
	3,12,942		2,47,690		2,51,633		2,34,969	
..	7,35,418	..	9,06,785	..	8,08,461	..	6,77,174	..
..	4,82,195	..	6,51,927	..	3,38,345	..	4,13,778	..
	12,17,613		15,58,712		11,46,806		10,90,952	
..	..	..	13,078	..	26,253	..	44,383	..
..	..	..	500	..	1,544	..	3,713	..
			13,578		27,797		48,096	

APPENDIX

Statement showing the expenditure on District Local Board Roads in the 1921-22

—— 1	1921–22.* 2	1922–23. 3	1923–24. 4	1924–25. 5	1925–26. 6
	Rs.	Rs.	Rs.	Rs.	Rs.
(1) Expenditure on metalled District Local Board roads for original works in the Presidency proper	1,80,641	2,11,788	2,45,685	1,85,618	2,22,685
(2) Expenditure on metalled District Local Board roads for original works in Sind ..	16,103	5,039	14,611	10,279	73,201
	1,96,744	2,16,827	2,60,246	1,95,897	2,95,886
(3) Expenditure on unmetalled District Local Board roads for original works in the Presidency proper	1,60,724†	94,250	1,28,734	1,17,791	1,78,703
(4) Expenditure on unmetalled District Local Board roads for original works in Sind	98,877	42,321	49,660	40,897	78,637
	2,59,601	1,36,571	1,78,394	1,58,688	2,57,340
(5) Expenditure on metalled District Local Board roads for maintenance in the Presidency proper	4,51,946	5,68,794	5,44,584	5,68,349	6,21,726
(6) Expenditure on metalled District Local Board roads for maintenance in Sind ..	7,455	4,924	2,901	8,951	3,295
	4,59,401	5,73,718	5,47,485	5,77,300	6,25,021
(7) Expenditure on unmetalled District Local Board roads for maintenance in the Presidency proper	5,18,795	4,55,687	5,30,217	4,92,900	6,36,110
(8) Expenditure on unmetalled District Local Board roads for maintenance in Sind	2,85,820	2,41,091	2,89,435	2,64,811	4,00,788
	8,04,615	6,96,778	8,19,652	7,57,711	10,36,898
(9) Expenditure on metalled and unmetalled District Local Board roads (original works and repairs) in the Ratnagiri District not included above ..	37,924	22,043	30,365	30,598	46,983
(10) Expenditure on metalled and unmetalled District Local Board roads (original works and repairs) in the Bijapur District not included above ..	..	..	..	..	....

* The figures in column 2 against items (1), (3), (5) and (7) do not include those

† This figure does not include the expenditure in the West Khandesh District as

V.

Presidency proper and Sind (original works and repairs) from to 1934–35.

1926–27. 7	1927–28. 8	1928–29. 9	1929–30. 10	1930–31. 11	1931–32. 12	1932–33. 13	1933–34. 14	1934–35. 15
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
2,14,017	2,96,423	3,29,532	4,11,234	3,07,573	2,69,334	1,92,344	2,16,078	1,52,374
1,33,542	77,391	1,54,304	76,837	49,194	45,765	38,162	39,368	31,857
3,47,559	3,75,814	4,83,836	4,88,071	3,56,767	3,15,099	2,30,506	2,55,446	1,84,231
2,97,654	3,18,374	2,72,491	2,62,260	2,28,956	1,86,361	2,13,520	2,06,288	2,57,209
92,034	85,337	40,952	21,352	39,817	18,636	23,488	23,098	51,093
3,89,688	4,03,711	3,13,443	2,83,612	2,68,773	2,04,997	2,37,008	2,29,386	3,08,302
7,48,360	7,59,703	8,51,468	8,73,140	9,31,651	8,81,092	7,66,140	7,53,558	7,27,755
2,073	5,405	12,652	36,856	50,441	11,757	9,869	10,968	22,794
7,50,433	7,65,108	8,64,120	9,09,996	9,82,092	8,92,849	7,76,009	7,64,526	7,50,549
6,79,365	5,91,524	4,57,202	3,51,071	4,62,352	3,36,981	3,36,929	3,17,477	3,63,204
3,88,198	4,41,126	4,57,168	4,34,781	4,44,139	3,58,065	3,06,622	3,57,848	4,08,282
10,67,563	10,32,650	9,14,370	7,85,852	9,06,491	6,95,046	6,43,551	6,75,325	7,71,486
36,010	38,379	41,785	57,594	..	..	..	..	..
..	..	..	92,233	..	..	..	..	..

for the Sholapur District as the Commissioner reports that they are not available.
the Commissioner reports that the information is not available.

APPENDIX

Statement showing expenditure on establishment in the Roads and Buildings and the percentage on the total outlay on works and

Year	Expenditure on Establishment in the Roads and Buildings Branch						
	41—Civil Works—Provincial (Transferred and Reserved)	60—Civil Works	41—Civil Works—Central	50—Military Works	Deposit Works	Total	Percentage on the total outlay on works and repairs in the Roads and Buildings Branch
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1921–22 ..	29,06,955	..	1,98,683	45,258	2,84,992	34,35,888	19·26
1922–23 ..	20,14,640	8,34,450	1,78,163	71,481	77,143	31,75,877	20·79
1923–24 ..	15,84,488	8,10,645	67,892	38,560	6,88,354	31,89,939	19·88
1924–25 ..	16,89,892	12,25,632	1,19,721	27,862	2,52,556	33,15,663	19·67
1925–26 ..	18,89,417	12,05,078	1,01,876	69,049	2,58,535	35,23,955	20·66
1926–27 ..	25,30,286	5,97,486	1,08,896	5,882	3,94,389	36,96,939	23·76
1927–28 ..	21,99,448	5,59,107	1,49,132	5,042	2,97,270	32,09,999	24·96
1928–29 ..	22,40,393	6,56,713	2,29,540	2,240	2,56,180	33,85,066	25·03
1929–30 ..	22,45,450	7,33,867	1,56,773	3,638	2,34,897	33,74,625	25·26
1930–31 ..	25,51,711	1,80,139	1,72,163	2,415	85,444	29,91,872	32·35
1931–32 ..	25,93,104	2,32,929	1,22,799	3,182	44,132	29,96,146	38·70
1932–33 ..	23,74,603	71,981	85,143	3,334	17,156	25,52,217	39·79
1933–34 ..	22,73,945	31,807	71,866	3,810	30,502	24,11,930	37·97
1934–35 ..	21,88,729	38,278	62,472	2,093	47,694	23,39,866	35·82

NOTE.—The percentage of the establishment charges on the cost of works and repairs in the (column 8). The reason is largely that the establishment charges in the Irrigation Branch include certain canal systems in Sind and the Deccan which has no connection with the execution of works spent on revenue management including the *control and distribution of water*, which is debited in the ment charges debited in the accounts to "revenue management" are deducted from the total cost so divergent. The increase in the rate per cent. in the R. & B. Branch is mainly due to decrease in which expenditure on works is reduced. A more overall percentage on expenditure on works is

VI.

the Irrigation Branches of the P. W. D. from the year 1921–22 *to* 1934–35 *and repairs during that period in both the Branches.*

Expenditure on Establishment in the Irrigation Branch						Total Establishment charges in the Roads and Buildings and Irrigation Branches	Percentage on the total outlay of works and repairs in Roads and Buildings and Irrigation Branches
55—Construction of Irrigation, Navigation, Embankment and Drainage Works	XIII-Works for which capital accounts are kept	15—Other Revenue Expenditure financed from Ordinary Revenues	Deposit Works	Total establishment charges	Percentage on the total outlay on works and repairs in the Irrigation Branch		
9	10	11	12	13	14	15	16
Rs.	Rs.	Rs.	Rs.	Rs.		Rs.	
11,53,734	13,85,960	6,68,651	2,770	32,11,115	33·59	66,47,003	24·26
14,20,751	13,44,901	5,34,327	1,993	33,01,972	32·22	64,77,849	25·38
21,87,793	14,43,222	4,32,013	2,056	40,65,084	33·89	72,55,023	25·87
29,10,785	17,37,724	5,26,361	492	51,75,362	28·73	84,91,025	24·35
32,21,647	17,99,343	5,19,228	2,681	55,42,899	21·62	90,66,854	21·23
35,56,959	18,08,385	5,94,089	3,207	59,63,540	30·56	96,60,479	27·54
36,98,956	19,20,773	7,80,812	3,847	64,03,888	26·00	96,13,887	25·64
39,04,670	21,35,939	6,16,601	2,750	66,59,960	25·51	1,00,45,026	25·35
42,26,873	21,08,302	6,18,312	1,012	69,54,499	23·26	1,03,29,124	23·88
42,88,966	18,31,149	5,99,021	1,734	67,21,470	21·60	97,13,342	24·06
40,37,972	16,34,014	5,18,627	86	61,90,696	22·40	91,86,842	25·97
23,70,427	23,53,971	4,01,329	680	56,26,407	28·54	81,78,624	31·30
17,60,090	29,83,531	5,14,407	48,960	53,06,988	40·41	77,18,918	39·61
15,36,830	30,98,255	4,55,037	441	50,90,563	42·89	74,30,429	40·38

Irrigation Branch (column 14) is generally higher than that in the Roads and Buildings Branch the cost of Special Revenue Establishment employed entirely on "revenue management" work on and repairs, and that these charges also include cost of part of the time of Irrigation establishment accounts to "revenue management" and not to execution of works and repairs. If these establish- of establishment in the Irrigation Branch the percentage on the cost of works and repairs will not be outlay on "works" and "repairs". Establishment charges cannot be reduced in the same ratio in inaccurate.

APPENDIX VII.

List of members of the Standing Advisory Committee for the Back Bay Reclamation Scheme for the year 1934–35.

	Name of Member.	Constituency.
1.	Sir Joseph Kay, Kt. (*Chairman*)	The Bombay Chamber of Commerce.
2.	Mr. Manu Subedar	Indian Merchants' Chamber.
3.	Mr. V. N. Chandavarkar	Millowners' Association, Bombay.
4.	Mr. Hooseinbhoy A. Lalljee	The Bombay Municipal Corporation.
5.	Mr. G. E. Bennet, M.Sc., M.Inst.C.E., Chief Engineer, Bombay Port Trust	Nominated by Government.
6.	Mr. N. V. Modak, City Engineer, Bombay Municipality	
7.	Mr. F. H. Taylor, F.S.I., M.R.S.I., Manager, Land and Bunders, Bombay Port Trust	
8.	Mr. K. S. Framji, C.I.E.	

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

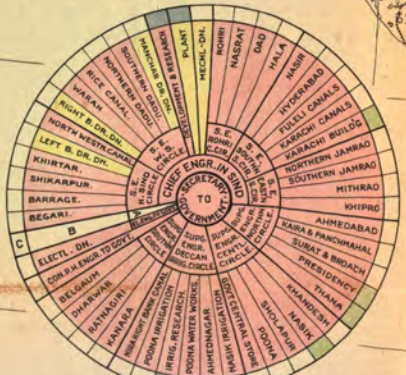
BOMBAY PRESIDENCY

PUBLIC WORKS DEPARTMENT

DIVISION MAP

1934-35.

Scale — 105 Miles to 1 Inch.



Secretary ——— is a Chief Engineer.

Administrative Zone 'A' ——— *Executive Division Zone 'B'* ——— *Zone 'C' shows nature of Executive Division in Zone 'B'* — bars — as follows —

Permanent Circles & Divisions ... Pink.
Temporary do do ... Yellow.
Road & Buildings Divisions (a). Green
Irrigation do (b). Blue
Mixed a. & b. d Miscellaneous do. White

DIAGRAM SHOWING PUBLIC WORKS DEPARTMENT ADMINISTRATION

DECCAN IRRIGATION.

Jurisdiction of Con. M.H. Engineer to Govt. ... Whole Presidency.
Electrical Engineer, ——— Do. ———

SIND PROVINCE

ARABIAN SEA

CENTRAL INDIA AGENCY

CENTRAL PROVINCES

HYDERABAD

MYSORE

Gulf of Cutch

Gulf of Oman

Gulf of Cambay

KATHIAWAR

KHANDESH

Diu I. (Port)

Portuguese Territory

PRESIDENCY DIVN. BOMBAY

THANA

POONA

SATARA

SHOLAPUR

RATNAGIRI

KANARA

KARWAR

Gort. Photozinco-Office. Poona.

66° 70° 74° 78°

28° 24° 20° 16°

gitized with financial assistance from th
Government of Maharashtra
on 22 July, 2017

MAP OF SIND

SHOWING

PUBLIC WORKS DEPARTMENT DIVISIONS.

1934-35

Scale 50 Miles = 1 Inch.

(L.200) G.P.Z.O. POONA. 1935.